

## Presence of EU Fragrance Allergens

This document replaces all previously produced versions for this product

### NORLIMBANOL® 967412

This document lists the fragrance allergens according to Regulation (EC) No 1223/2009 including the Commission Regulation (EU) 2023/1545 of 26 July 2023 amending the regulation as regards labelling of fragrance allergens in cosmetic products.

The quantification of the presence of each substance is based not only on the amount entering a product by direct addition (Direct Addition) but also the amounts arising as constituents of natural essential oils and extracts (Indirect Nat) and as impurities in synthetic ingredients (Indirect Synth). It is the total of these that is ultimately important (Total). The total might not be the exact sum of the direct and indirect additions due to rounding.

| Allergen                                                          | Note | Direct Add. | Indir. Nat. | Indir. Synth. | Total |
|-------------------------------------------------------------------|------|-------------|-------------|---------------|-------|
| Alpha-Isomethyl ionone<br>CAS# 127-51-5                           |      | -           | -           | -             | -     |
| Amyl Cinnamal<br>CAS# 122-40-7                                    |      | -           | -           | -             | -     |
| AmylCinnamyl Alcohol<br>CAS# 101-85-9                             |      | -           | -           | -             | -     |
| Anise Alcohol<br>CAS# 105-13-5                                    |      | -           | -           | -             | -     |
| Benzyl Alcohol<br>CAS# 100-51-6                                   |      | -           | -           | -             | -     |
| Benzyl Benzoate<br>CAS# 120-51-4                                  |      | -           | -           | -             | -     |
| Benzyl Cinnamate<br>CAS# 103-41-3                                 |      | -           | -           | -             | -     |
| Benzyl Salicylate<br>CAS# 118-58-1                                |      | -           | -           | -             | -     |
| Butylphenyl Methylpropional<br>CAS# 80-54-6                       | 1    | -           | -           | -             | -     |
| Cinnamal<br>CAS# 104-55-2                                         |      | -           | -           | -             | -     |
| Cinnamyl Alcohol<br>CAS# 104-54-1                                 |      | -           | -           | -             | -     |
| Citral<br>CAS# 5392-40-5 / 141-27-5 / 106-26-3                    |      | -           | -           | -             | -     |
| Citronellol<br>CAS# 106-22-9 / 26489-01-0 / 1117-61-9 / 7540-51-4 |      | -           | -           | -             | -     |
| Coumarin<br>CAS# 91-64-5                                          |      | -           | -           | -             | -     |
| Eugenol<br>CAS# 97-53-0                                           |      | -           | -           | -             | -     |
| Evernia Furfuracea (Treemoss) Extract<br>CAS# 90028-67-4          |      | -           | -           | -             | -     |
| Evernia Prunastri (Oakmoss) Extract<br>CAS# 90028-68-5            |      | -           | -           | -             | -     |



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| Allergen                                                                                | Note | Direct Add. | Indir. Nat. | Indir. Synt. | Total |
|-----------------------------------------------------------------------------------------|------|-------------|-------------|--------------|-------|
| Farnesol<br>CAS# 4602-84-0                                                              |      | -           | -           | -            | -     |
| Geraniol<br>CAS# 106-24-1                                                               |      | -           | -           | -            | -     |
| Hexyl Cinnamal<br>CAS# 101-86-0                                                         |      | -           | -           | -            | -     |
| Hydroxycitronellal<br>CAS# 107-75-5                                                     |      | -           | -           | -            | -     |
| Hydroxyisohexyl 3-&4-Cyclohexene Carboxaldehyde (HMPCC)<br>CAS# 51414-25-6 / 31906-04-4 | 1, 2 | -           | -           | -            | -     |
| Hydroxyisohexyl-3-Cyclohexene Carboxaldehyde<br>CAS# 31906-04-4                         | 1    | -           | -           | -            | -     |
| Isoeugenol<br>CAS# 97-54-1 / 5932-68-3 / 5912-86-7                                      |      | -           | -           | -            | -     |
| Limonene<br>CAS# 138-86-3 / 7705-14-8 / 5989-27-5 / 5989-54-8                           |      | -           | -           | -            | -     |
| Linalool<br>CAS# 78-70-6                                                                |      | -           | -           | -            | -     |
| Methyl-2-Octynoate<br>CAS# 111-12-6                                                     |      | -           | -           | -            | -     |
| 3-Propylidenephthalide<br>CAS# 17369-59-4                                               | 3    | -           | -           | -            | -     |
| 6-Methyl coumarin<br>CAS# 92-48-8                                                       | 3    | -           | -           | -            | -     |
| Acetyl Cedrene<br>CAS# 32388-55-9                                                       | 3    | -           | -           | -            | -     |
| Alpha-Terpinene<br>CAS# 99-86-5                                                         | 3    | -           | -           | -            | -     |
| Amyl Salicylate<br>CAS# 2050-08-0                                                       | 3    | -           | -           | -            | -     |
| Anethole<br>CAS# 104-46-1 / 4180-23-8                                                   | 3    | -           | -           | -            | -     |
| Benzaldehyde<br>CAS# 100-52-7                                                           | 3    | -           | -           | -            | -     |
| Beta-Caryophyllene<br>CAS# 87-44-5                                                      | 3    | -           | -           | -            | -     |
| Camphor<br>CAS# 76-22-2 / 21368-68-3 / 464-49-3 / 464-48-2                              | 3    | -           | -           | -            | -     |
| Cananga Odorata Oil/Extract<br>CAS# 83863-30-3 / 8006-81-3 / 68606-83-7 / 93686-30-7    | 3    | -           | -           | -            | -     |
| Carvone<br>CAS# 99-49-0 / 6485-40-1 / 2244-16-8                                         | 3    | -           | -           | -            | -     |
| Cedrus Atlantica Oil/ Extract<br>CAS# 92201-55-3 / 8023-85-6                            | 3    | -           | -           | -            | -     |
| Cinnamomum Cassia Leaf Oil<br>CAS# 8007-80-5 / 84961-46-6                               | 3    | -           | -           | -            | -     |
| Cinnamomum Zeylanicum Bark Oil<br>CAS# 8015-91-6 / 84649-98-9                           | 3    | -           | -           | -            | -     |



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| Allergen                                                                                                                              | Note | Direct Add. | Indir. Nat. | Indir. Synt. | Total |
|---------------------------------------------------------------------------------------------------------------------------------------|------|-------------|-------------|--------------|-------|
| Citrus Aurantium Bergamia Peel Oil<br>CAS# 8007-75-8 / 89957-91-5 / 68648-33-9 /<br>85049-52-1                                        | 3    | -           | -           | -            | -     |
| Citrus Aurantium Flower Oil<br>CAS# 72968-50-4 / 8028-48-6 / 8016-38-4                                                                | 3    | -           | -           | -            | -     |
| Citrus Aurantium Peel Oil<br>CAS# 68916-04-1 / 72968-50-4 / 97766-30-8 /<br>8028-48-6 / 8008-57-9                                     | 3    | -           | -           | -            | -     |
| Citrus Limon Peel Oil<br>CAS# 84929-31-7 / 8008-56-8                                                                                  | 3    | -           | -           | -            | -     |
| Dimethyl Phenethyl Acetate<br>CAS# 151-05-3                                                                                           | 3    | -           | -           | -            | -     |
| Eucalyptus Globulus Oil<br>CAS# 97926-40-4 / 8000-48-4                                                                                | 3    | -           | -           | -            | -     |
| Eugenia Caryophyllus Oil<br>CAS# 8000-34-8 / 8015-97-2 / 84961-50-2                                                                   | 3    | -           | -           | -            | -     |
| Eugenyl acetate<br>CAS# 93-28-7                                                                                                       | 3    | -           | -           | -            | -     |
| Geranyl acetate<br>CAS# 105-87-3                                                                                                      | 3    | -           | -           | -            | -     |
| Hexadecanolactone<br>CAS# 109-29-5                                                                                                    | 3    | -           | -           | -            | -     |
| Hexamethylindanopyran<br>CAS# 1222-05-5                                                                                               | 3    | -           | -           | -            | -     |
| Isoeugenyl acetate<br>CAS# 93-29-8                                                                                                    | 3    | -           | -           | -            | -     |
| Jasmine Oil/Extract<br>CAS# 84776-64-7 / 90045-94-6 / 8022-96-6 /<br>8024-43-9                                                        | 3    | -           | -           | -            | -     |
| Juniperus Virginiana Oil<br>CAS# 8000-27-9 / 85085-41-2                                                                               | 3    | -           | -           | -            | -     |
| Laurus Nobilis Leaf Oil<br>CAS# 8002-41-3 / 8007-48-5 / 84603-73-6                                                                    | 3    | -           | -           | -            | -     |
| Lavandula Oil/ Extract<br>CAS# 91722-69-9 / 8022-15-9 / 93455-96-0 / 93455-97-1<br>/ 92623-76-2 / 84776-65-8 / 8000-28-0 / 90063-37-9 | 3    | -           | -           | -            | -     |
| Lemongrass Oil<br>CAS# 8007-02-1 / 89998-16-3 / 91844-92-7                                                                            | 3    | -           | -           | -            | -     |
| Linalyl acetate<br>CAS# 115-95-7                                                                                                      | 3    | -           | -           | -            | -     |
| Lippia citriodora absolute<br>CAS# 8024-12-2 / 85116-63-8                                                                             | 3    | -           | -           | -            | -     |
| Mentha Piperita Oil<br>CAS# 8006-90-4 / 84082-70-2                                                                                    | 3    | -           | -           | -            | -     |
| Mentha Viridis Leaf Oil<br>CAS# 8008-79-5 / 84696-51-5                                                                                | 3    | -           | -           | -            | -     |
| Menthol<br>CAS# 89-78-1 / 1490-04-6 / 2216-51-5 / 15356-60-2                                                                          | 3    | -           | -           | -            | -     |
| Methyl salicylate<br>CAS# 119-36-8                                                                                                    | 3    | -           | -           | -            | -     |



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| Allergen                                                                                                                         | Note | Direct Add. | Indir. Nat. | Indir. Synt. | Total |
|----------------------------------------------------------------------------------------------------------------------------------|------|-------------|-------------|--------------|-------|
| Myroxylon Pereirae Oil/ Extract<br>CAS# 8007-00-9                                                                                | 3    | -           | -           | -            | -     |
| Narcissus Extract<br>CAS# 90064-26-9 / 68917-12-4 / 90064-27-0 /<br>90064-25-8                                                   | 3    | -           | -           | -            | -     |
| Pelargonium Graveolens Oil<br>CAS# 90082-51-2 / 8000-46-2                                                                        | 3    | -           | -           | -            | -     |
| Pinene<br>CAS# 80-56-8 / 7785-70-8 / 127-91-3 / 18172-67-3                                                                       | 3    | -           | -           | -            | -     |
| Pinus Mugo<br>CAS# 90082-72-7                                                                                                    | 3    | -           | -           | -            | -     |
| Pinus Pumila<br>CAS# 97676-05-6                                                                                                  | 3    | -           | -           | -            | -     |
| Pogostemon Cablin Oil<br>CAS# 8014-09-3 / 84238-39-1                                                                             | 3    | -           | -           | -            | -     |
| Rose Flower Oil/Extract<br>CAS# 8007-01-0 / 90106-38-0 / 93334-48-6 /<br>84696-47-9 / 84604-12-6 / 84604-13-7 / 92347-25-6       | 3    | -           | -           | -            | -     |
| Rose Ketones<br>CAS# 43052-87-5 / 23726-94-5 / 24720-09-0 /<br>23696-85-7 / 57378-68-4 / 71048-82-3 / 23726-92-3 /<br>23726-91-2 | 3    | -           | -           | -            | -     |
| Salicylaldehyde<br>CAS# 90-02-8                                                                                                  | 3    | -           | -           | -            | -     |
| Santalol<br>CAS# 11031-45-1 / 115-71-9 / 77-42-9                                                                                 | 3    | -           | -           | -            | -     |
| Santalum Album Oil<br>CAS# 8006-87-9 / 84787-70-2                                                                                | 3    | -           | -           | -            | -     |
| Sclareol<br>CAS# 515-03-7                                                                                                        | 3    | -           | -           | -            | -     |
| Terpineol<br>CAS# 8000-41-7 / 98-55-5 / 138-87-4 / 586-81-2                                                                      | 3    | -           | -           | -            | -     |
| Terpinolene<br>CAS# 586-62-9                                                                                                     | 3    | -           | -           | -            | -     |
| Tetramethyl acetyloctahydronaphthalenes<br>CAS# 54464-57-2 / 54464-59-4 / 68155-66-8 /<br>68155-67-9                             | 3    | -           | -           | -            | -     |
| Trimethylbenzenepropanol<br>CAS# 103694-68-4                                                                                     | 3    | -           | -           | -            | -     |
| Trimethylcyclopentenyl Methylisopentenol<br>CAS# 67801-20-1                                                                      | 3    | -           | -           | -            | -     |
| Turpentine<br>CAS# 9005-90-7 / 8006-64-2 / 8052-14-0                                                                             | 3    | -           | -           | -            | -     |
| Vanillin<br>CAS# 121-33-5                                                                                                        | 3    | -           | -           | -            | -     |

### Notes:

<sup>1</sup> Substance listed in Annex II of Regulation (EC) No 1223/2009 on cosmetic products.

<sup>2</sup> Corresponds to the commercial quality, which includes the major isomer 4-(4-Hydroxy-4-methylpentyl)-3- cyclohexene-1- carboxaldehyde and the minor isomer 3-(4-Hydroxy-4-methylpentyl)-3-cyclohexene-1- carboxaldehyde.



<sup>3</sup> Cosmetic products containing that substance that do not comply with the labelling requirements may benefit of the transition period according to the Commission regulation (EU) 2023/1545 of 26 July 2023.

Concentrations are given in % weight in the formula. Concentrations indicated as “–” indicate that the substances are <1ppm and generally below the level of detection using the standard methods developed by the International Fragrance Association (IFRA) (Chaintreau et al., 2003, J. Agric. Food Chem., in press, and the Method for analysis of allergens EN16274:2021 – Quantification of an extended list of 57 suspected allergens in ready to inject fragrance materials by gas chromatography mass spectrometry).

For single raw materials, the figures are those resulting from analysis using the analytical method referred above and information provided by suppliers.

As a rule, different deliveries/production lots of the same material are measured and the figures indicated here are based on historical maximum values and information given by suppliers.

Due to the complexity of quantifying natural complex substances by analytical methodology, the declaration of their presence is not based on analytical measurements but based on screening techniques during the fragrance formula creation.

By incorporating safety margins and taking upper limit of variation into our calculations dsm-firmenich is intending to ensure stable allergens declarations over multiple deliveries avoiding any declaration change over the life of the fragrance product. The locking of allergen concentrations is more effective than running measurement of each delivery of the fragrance composition.

The concentrations given for these substances represent the most accurate information that we can currently technically supply based on intentionally added raw materials at the time of the manufacturing process and according to the EU Cosmetic Products Regulation (EC) No. 1223/2009. However, it is possible that over time and independently of our best intentions, variations in these levels can occur particularly due to changes in the composition of natural ingredients, during maceration or storage or due to other chemical interactions.

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