Presence of EU Fragrance Allergens

This document replaces all previously produced versions for this product

MANDARINAL 032048 SAEK

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. Synt.	Total
Alpha-Isomethyl-ionone CAS# 127-51-5		-	-	-	-
Amyl Cinnamal CAS# 122-40-7		0.2870%	-	-	0.2870%
AmylCinnamyl Alcohol CAS# 101-85-9		-	-	0.0029%	0.0029%
Anise Alcohol CAS# 105-13-5		-	-	-	-
Benzyl Alcohol CAS# 100-51-6		0.0204%	0.0003%	0.0034%	0.0241%
Benzyl Benzoate CAS# 120-51-4		0.0005%	0.0052%	0.0005%	0.0062%
Benzyl Cinnamate CAS# 103-41-3		-	-	-	-
Benzyl Salicylate CAS# 118-58-1		-	0.0026%	-	0.0026%
Butylphenyl Methylpropional CAS# 80-54-6	1	-	-	-	-
Cinnamal CAS# 104-55-2		-	-	-	-
Cinnamyl Alcohol CAS# 104-54-1		-	-	-	-
Citral CAS# 5392-40-5 / 141-27-5 / 106-26-3		0.1967%	0.0315%	0.0005%	0.2287%
Citronellol CAS# 106-22-9 / 26489-01-0 / 1117-61-9 / 7540-51-4		0.0070%	0.0062%	0.0004%	0.0136%
Coumarin CAS# 91-64-5		-	0.0001%	-	0.0001%
Eugenol CAS# 97-53-0		-	0.0009%	-	0.0009%
Evernia Furfuracea (Treemoss) Extract CAS# 90028-67-4		-	-	-	-
Evernia Prunastri (Oakmoss) Extract CAS# 90028-68-5		-	-	-	-
Farnesol CAS# 4602-84-0		-	0.0015%	-	0.0015%
Geraniol CAS# 106-24-1		0.0267%	0.0221%	0.0007%	0.0496%
Hexyl Cinnamal CAS# 101-86-0		-	-	0.0007%	0.0007%
Hydroxycitronellal CAS# 107-75-5		-	-	-	-

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Hydroxyisohexyl 3-&4-Cyclohexene Carboxaldehyde (HMPCC) CAS# 51414-25-6 / 31906-04-4	1, 2	-	-	-	-
Hydroxyisohexyl-3-Cyclohexene Carboxaldehyde CAS# 31906-04-4	1	-	-	-	-
Isoeugenol CAS# 97-54-1 / 5932-68-3 / 5912-86-7		-	0.0005%	-	0.0005%
Limonene CAS# 138-86-3 / 7705-14-8 / 5989-27-5 / 5989-54-8		12.2262%	4.9547%	0.0727%	17.2536%
Linalool CAS# 78-70-6		9.9089%	0.1111%	0.0035%	10.0235%
Methyl-2-Octynoate CAS# 111-12-6		-	-	-	-
3-Propylidenephthalide CAS# 17369-59-4	3	-	-	-	-
6-Methyl coumarin CAS# 92-48-8	3	-	-	-	-
Acetyl Cedrene CAS# 32388-55-9	3	0.0001%	-	-	0.0001%
Alpha-Terpinene CAS# 99-86-5	3	-	0.1145%	0.0141%	0.1286%
Amyl Salicylate CAS# 2050-08-0	3	-	-	-	-
Anethole CAS# 104-46-1 / 4180-23-8	3	-	0.0002%	0.0002%	0.0004%
Benzaldehyde CAS# 100-52-7	3	-	-	0.0018%	0.0019%
Beta-Caryophyllene CAS# 87-44-5	3	-	0.0233%	0.0018%	0.0251%
Camphor CAS# 76-22-2 / 21368-68-3 / 464-49-3 / 464-48-2	3	-	0.0009%	0.0006%	0.0015%
Cananga Odorata Oil/Extract CAS# 83863-30-3 / 8006-81-3 / 68606-83-7 / 93686-30-7	3	0.0574%	-	-	0.0574%
Carvone CAS# 99-49-0 / 6485-40-1 / 2244-16-8	3	-	0.0228%	-	0.0228%
Cedrus Atlantica Oil/ Extract CAS# 92201-55-3 / 8023-85-6	3	-	-	-	-
Cinnamomum Cassia Leaf Oil CAS# 8007-80-5 / 84961-46-6	3	-	-	-	-
Cinnamomum Zeylanicum Bark Oil CAS# 8015-91-6 / 84649-98-9	3	-	-	-	-
Citrus Aurantium Bergamia Peel Oil CAS# 8007-75-8 / 89957-91-5 / 68648-33-9 / 85049-52-1	3	-	-	-	-
Citrus Aurantium Flower Oil CAS# 72968-50-4 / 8028-48-6 / 8016-38-4	3	-	-	-	-
Citrus Aurantium Peel Oil CAS# 68916-04-1 / 72968-50-4 / 97766-30-8 / 8028-48-6 / 8008-57-9	3	4.2411%	-	-	4.2411%
Citrus Limon Peel Oil CAS# 84929-31-7 / 8008-56-8	3	-	-	-	-
Dimethyl Phenethyl Acetate CAS# 151-05-3	3	-	-	-	-
Eucalyptus Globulus Oil CAS# 97926-40-4 / 8000-48-4	3	-	-	-	-
Eugenia Caryophyllus Oil CAS# 8000-34-8 / 8015-97-2 / 84961-50-2	3	-	-	-	-
Eugenyl acetate CAS# 93-28-7	3	-	-	-	-

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Geranyl acetate CAS# 105-87-3	3	-	0.0076%	0.0099%	0.0175%
Hexadecanolactone CAS# 109-29-5	3	-	-	-	-
Hexamethylindanopyran CAS# 1222-05-5	3	-	-	-	-
Isoeugenyl acetate CAS# 93-29-8	3	-	-	-	-
Jasmine Oil/Extract CAS# 84776-64-7 / 90045-94-6 / 8022-96-6 / 8024-43-9	3	-	-	-	-
Juniperus Virginiana Oil CAS# 8000-27-9 / 85085-41-2	3	0.0010%	-	-	0.0010%
Laurus Nobilis Leaf Oil CAS# 8002-41-3 / 8007-48-5 / 84603-73-6	3	-	-	-	-
Lavandula Oil/ Extract CAS# 91722-69-9 / 8022-15-9 / 93455-96-0 / 93455-97-1 / 92623-76-2 / 84776-65-8 / 8000-28-0 / 90063-37-9	3	0.0266%	-	-	0.0266%
Lemongrass Oil CAS# 8007-02-1 / 89998-16-3 / 91844-92-7	3	-	-	-	-
Linalyl acetate CAS# 115-95-7	3	3.2477%	0.0210%	-	3.2687%
Lippia citriodora absolute CAS# 8024-12-2 / 85116-63-8	3	-	-	-	-
Mentha Piperita Oil CAS# 8006-90-4 / 84082-70-2	3	-	-	-	-
Mentha Viridis Leaf Oil CAS# 8008-79-5 / 84696-51-5	3	-	-	-	-
Menthol CAS# 89-78-1 / 1490-04-6 / 2216-51-5 / 15356-60-2	3	-	-	-	-
Methyl salicylate CAS# 119-36-8	3	0.1000%	-	-	0.1001%
Myroxylon Pereirae Oil/ Extract CAS# 8007-00-9	3	-	-	-	-
Narcissus Extract CAS# 90064-26-9 / 68917-12-4 / 90064-27-0 / 90064-25-8	3	-	-	-	-
Pelargonium Graveolens Flower Oil CAS# 90082-51-2 / 8000-46-2	3	-	-	-	-
Pinene CAS# 80-56-8 / 7785-70-8 / 127-91-3 / 18172-67-3	3	0.2577%	0.3807%	0.0224%	0.6608%
Pinus Mugo CAS# 90082-72-7	3	-	-	-	-
Pinus Pumila CAS# 97676-05-6	3	-	-	-	-
Pogostemon Cablin Oil CAS# 8014-09-3 / 84238-39-1	3	-	-	-	-
Rose Flower Oil/Extract CAS# 8007-01-0 / 90106-38-0 / 93334-48-6 / 84696-47-9 / 84604-12-6 / 84604-13-7 / 92347-25-6	3	0.0400%	-	-	0.0400%
Rose Ketones CAS# 43052-87-5 / 23726-94-5 / 24720-09-0 / 23696-85-7 / 57378-68-4 / 71048-82-3 / 23726-92-3 / 23726-91-2	3	-	-	-	-
Salicylaldehyde CAS# 90-02-8	3	-	-	-	-
Santalol CAS# 11031-45-1 / 115-71-9 / 77-42-9	3	-	-	-	-
Santalum Album Oil CAS# 8006-87-9 / 84787-70-2	3	-	-	-	-

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Sclareol CAS# 515-03-7	3	-	0.0113%	-	0.0113%
Terpineol CAS# 8000-41-7 / 98-55-5 / 138-87-4 / 586-81-2	3	2.8500%	0.0248%	0.0449%	2.9198%
Terpinolene CAS# 586-62-9	3	0.0716%	0.0798%	0.0045%	0.1558%
Tetramethyl acetyloctahydronaphthalenes CAS# 54464-57-2 / 54464-59-4 / 68155-66-8 / 68155-67-9	3	-	-	-	-
Trimethylbenzenepropanol CAS# 103694-68-4	3	-	-	-	-
Trimethylcyclopentenyl Methylisopentenol CAS# 67801-20-1	3	-	-	-	-
Turpentine CAS# 9005-90-7 / 8006-64-2 / 8052-14-0	3	0.0660%	-	-	0.0660%
Vanillin CAS# 121-33-5	3	-	-	-	-

Notes:
[1] Substance listed in Annex II of Regulation (EC) No 1223/2009 on cosmetic products.
[2] 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.
[3] 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 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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