



De Hekserij

De Hekserij
Sporstraat 57
8271 RG IJsselmuiden
The Netherlands

23082 - Limonene D- (nat)

1Doc: All available data that is not in the SDS and that is not batch specific.
Version 1 | 2025-10-30

Identity

Product	: Limonene D- (nat) [Limonene D- (nat)]
Code	: 23082
INCI name	: LIMONENE
EC number	: 227-813-5
CAS number EU	: 5989-27-5
CAS number TSCA	: 5989-27-5
FEMA number	: 2633

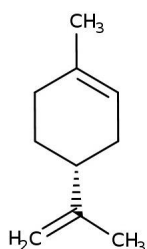
Customs information

HS code	: 3301 9010
Country of origin	: Brazil

Identity check

Appearance at RT	: Clear liquid
Colour	: Colourless
Odour	: Citrus, Fresh, Herbal
Refractive index (20°C)	: 1,469 - 1,475
Specific gravity (20°C)	: 0,839 - 0,845

Chemical formulation



Additives

Antioxidants	: None
Chelators	: None
Solvents	: None

Production / origin

Fractional distillation of *Citrus sinensis* L. Osbeck oil (cold pressed).

Composition

d-Limonene	: >= 97 %
Myrcene	: 1 - 3 %
Eucalyptol	: < 1 %
alpha-Phellandrene	: < 1 %
beta-Pinene	: < 1 %
Linalool	: < 1 %

Physiochemical specification

Log Pow	: 4,38
Vapour pressure	: 186,4 Pa
Melting point	: < - 25 °C
Boiling point	: 176 °C

Use and storage

Avoid light and temperatures above 25 °C. Avoid temperatures above 40 °C during a longer period.
Suitable in fragrance compositions for cosmetics, cleaning products and other fragranced products.
We do not sell products for use in oral care products, food, feed, tobacco, e-smoking or pharmaceuticals.
Keep dark and dry in a closed container. Hazardous (REACH/CLP), SDS available on request.

Sales specification

Purity	: >= 97 %
--------	-----------

Note: sales specification means typical values at time of analysis. Values are not guaranteed. Values can be different in certain batches and change after analysis.

Allergens, EU Cosmetics Regulation

This product contains the following fragrance allergens as specified in the EU Cosmetics Regulation:
Fragrance ingredients restricted as potential allergens in the extended list amending ANNEX III of EUROPEAN COSMETIC REGULATION (EC) No1223/2009

*Total % in Perfume Compound determined by calculation (Direct add and Indirect from naturals/synthetics)

Ingredient Name	Cas Number(s)			%*
3-PROPYLIDENEPHTHALIDE	: 17369-59-4			: -
6-METHYL COUMARIN	: 92-48-8			: -
ACETYLCEDRENE	: 32388-55-9			: -
ALPHA-ISOMETHYL IONONE	: 127-51-5			: -
ALPHA-TERPINENE	: 99-86-5			: -
AMYL CINNAMAL	: 122-40-7			: -
AMYL SALICYLATE	: 2050-08-0			: -
AMYL CINNAMYL ALCOHOL	: 101-85-9			: -
ANETHOLE	: 104-46-1	4180-23-8		: -
ANISE ALCOHOL	: 105-13-5			: -
BENZALDEHYDE	: 100-52-7			: -
BENZYL ALCOHOL	: 100-51-6			: -
BENZYL BENZOATE	: 120-51-4			: -
BENZYL CINNAMATE	: 103-41-3			: -
BENZYL SALICYLATE	: 118-58-1			: -
BETA-CARYOPHYLLENE	: 87-44-5			: -
CAMPHOR	: 76-22-2	21368-68-3	464-49-3	: -
		464-48-2		

CANANGA ODORATA FLOWER EXTRACTS	: 83863-30-3	8006-81-3 93686-30-7	68606-83-7	: -
CARVONE	: 99-49-0	6485-40-1	2244-16-8	: 0,05
CEDRUS ATLANTICA BARK/LEAF/WOOD EXTRACTS	: 8023-85-6	92201-55-3		: -
CINNAMAL	: 104-55-2			: -
CINNAMOMUM CASSIA LEAF OIL	: 8007-80-5	84961-46-6		: -
CINNAMOMUM ZEYLANICUM BARK OIL	: 8015-91-6	84649-98-9		: -
CINNAMYL ALCOHOL	: 104-54-1			: -
CITRAL	: 5392-40-5	141-27-5	106-26-3	: -
CITRONELLOL	: 106-22-9	26489-01-0 7540-51-4	1117-61-9	: -
CITRUS AURANTIUM BERGAMIA PEEL OIL	: 8007-75-8	89957-91-5 85049-52-1	68648-33-9	: -
CITRUS AURANTIUM FLOWER OIL	: 72968-50-4	8028-48-6	8016-38-4	: -
CITRUS AURANTIUM PEEL OIL	: 68916-04-01 8028-48-6	72968-50-4 8008-57-9	97766-30-8	: -
CITRUS LIMON PEEL OIL	: 84929-31-7	8008-56-8		: -
COUMARIN	: 91-64-5			: -
DIMETHYL PHENYL ACETATE	: 151-05-3			: -
EUCALYPTUS GLOBULUS OIL	: 97926-40-4	8000-48-4		: -
EUGENIA CARYOPHYLLUS OIL	: 8000-34-8	8015-97-2	84961-50-2	: -
EUGENOL	: 97-53-0			: -
EUGENYL ACETATE	: 93-28-7			: -
EVERNIA FURFURACEA (TREEMOSS) EXTRACT	: 90028-67-4			: -
EVERNIA PRUNASTRI (OAKMOSS) EXTRACT	: 90028-68-5			: -
FARNESOL	: 4602-84-0			: -
GERANIOL	: 106-24-1			: -
GERANYL ACETATE	: 105-87-3			: -
HEXADECANOLACTONE	: 109-29-5			: -
HEXAMETHYLINDANOPYRAN (GALAXOLIDE)	: 1222-05-5			: -
HEXYL CINNAMAL	: 101-86-0			: -
HYDROXYCITRONELLAL	: 107-75-5			: -
ISOEUGENOL	: 97-54-1	5932-68-3	5912-86-7	: -
ISOEUGENYL ACETATE	: 93-29-8			: -
JASMINE OIL/EXTRACT (GRANDIFLORUM / OFFICINALE)	: 84776-64-7	90045-94-6 8024-43-9	8022-96-6	: -
JUNIPERUS VIRGINIANA OIL	: 8000-27-9	85085-41-2		: -
LAURUS NOBILIS LEAF OIL	: 8002-41-3	8007-48-5	84603-73-6	: -
LAVANDULA OIL/ EXTRACT	: 91722-69-9 93455-97-1 8000-28-0	8022-15-9 92623-76-2 90063-37-9	93455-96-0 84776-65-8	: -
LEMONGRASS OIL	: 8007-02-1	89998-16-3	91844-92-7	: -
LIMONENE	: 138-86-3	7705-14-8 5989-54-8	5989-27-5	: 97,00
LINALOOL	: 78-70-6			: 0,10
LINALYL ACETATE	: 115-95-7			: -
LIPPIA CITRIODORA ABSOLUTE (VERBENA ABSOLUTE)	: 8024-12-2	85116-63-8		: -
MENTHA PIPERITA OIL	: 8006-90-4	84082-70-2		: -
MENTHA VIRIDIS LEAF OIL	: 8008-79-5	84696-51-5		: -
MENTHOL	: 89-78-1	1490-04-6 15356-60-2	2216-51-5	: -
METHYL 2-OCTYNOATE	: 111-12-6			: -
METHYL SALICYLATE	: 119-36-8			: -
MYROXYLON PEREIRAE OIL/ EXTRACT (PERU BALSAM)	: 8007-00-9			: -
NARCISSUS EXTRACT	: 90064-26-9	68917-12-4 90064-25-8	90064-27-0	: -
PELARGONIUM GRAVEOLENS FLOWER OIL	: 90082-51-2	8000-46-2		: -

PINENE	:	80-56-8 18172-67-3	7785-70-8	127-91-3	: 0,20
PINUS MUGO	:	90082-72-7			: -
PINUS PUMILA	:	97676-05-6			: -
POGOSTEMON CABLIN OIL	:	8014-09-3	84238-39-1		: -
ROSE FLOWER OIL/EXTRACT	:	8007-01-0 84696-47-9	90106-38-0 84604-12-6	93334-48-6 84604-13-7	: -
			92347-25-6		
ROSE KETONES	:	43052-87-5 23696-85-7 23726-92-3	23726-94-5 57378-68-4 23726-91-2	24720-09-0 71048-82-3	: -
SALICYLALDEHYDE	:	90-02-8			: -
SANTALOL	:	11031-45-1	115-71-9	77-42-9	: -
SANTALUM ALBUM OIL	:	8006-87-9	84787-70-2		: -
SCLAREOL	:	515-03-7			: -
TERPINEOL	:	8000-41-7	98-55-5 586-81-2	138-87-4	: 0,05
TERPINOLENE	:	586-62-9			: 0,05
TETRAMETHYLACETYLOCTAHYDRO NAPHTHALENES (OTNE)	:	54464-57-2	54464-59-4 68155-67-9	68155-66-8	: -
TRIMETHYLBENZENEPROPANOL	:	103694-68-4			: -
TRIMETHYLCYCLOPENTENE METHYL PENTENOL	:	67801-20-1			: -
TURPENTINE	:	9005-90-7	8006-64-2	8052-14-0	: -
VANILLIN	:	121-33-5			: -

These values are the typical maximum values, in rare cases these values can be higher.

Limonene is restricted for use in cosmetics regulation, by the following entry of the appendixes of the cosmetics regulation:

Annex III / 88 : The peroxide value for each substance shall be less than 20 mmoles/L

Please note we can not guarantee that value, it has to be determined shortly before the actual use.

IFRA QRE

According to the IFRA standard (51th Amendment) this product is restricted in use. The following limits apply (calculated for the finished product):

IFRA Class	Maximum use level
1 Products applied to the lips.	: 0,0 %
2 Products applied to the axillae.	: 100 %
3 Products applied to the face/body using fingertips.	: 40 %
4 Products related to fine fragrances.	: 100 %
5A Products applied to the body using the hands (palms), primarily leave-on (Body lotion).	: 100 %
5B Products applied to the face using the hands (palms), primarily leave-on (Face moisturizer).	: 78 %
5C Products applied to the hands using the hands (palms), primarily leave-on (Hand cream).	: 100 %
5D Products applied to babies using the hands (palms), primarily leave-on (Baby cream, oil, talc).	: 26 %
6 Products with oral and lip exposure.	: 0,0 %
7A Rinse-off products applied to the hair with some hand contact.	: 78 %
7B Leave-on products applied to the hair with some hand contact.	: 78 %
8 Products with significant anogenital exposure (tampon).	: 26 %
9 Products with body and hand exposure, primarily rinse off.	: 100 %

10A	Household products.	: 100 %
10B	Household care products with mostly hand contact (household aerosol/spray products).	: 100 %
11A	Products with intended skin contact but minimal transfer of fragrance to skin from inert substrate without UV exposure.	: 26 %
11B	Products with intended skin contact but minimal transfer of fragrance to skin from inert substrate with potential UV exposure.	: 26 %
12	Other air care products not intended for direct skin contact, minimal or insignificant transfer to skin.	: 100 %

Please note that we advise using lower amounts of this material in specific cases. This can be based on the fact that certain applications should only contain a small amount of fragrance anyway, independent of the risks of the material itself.

IFRA - Limitations

This product contains the following substances that are listed in the IFRA standards (51th Amendment):

CARVONE 99-49-0	: 0,05%	Restricted
LIMONENE 5989-27-5	: 97,00%	Specification
LINALOOL 78-70-6	: 0,10%	Specification

Natural

This product is a natural aromatic raw material according to ISO 9235.

This product does not contain animal derived products, and can therefore be considered vegan.

Natural Index (acc. to ISO 16128)	NI= 1
Natural Origin Index (acc. to ISO 16128)	NOI= 1
Organic Index (acc. to ISO 16128)	OI= 0

Animal testing

This raw material has not been tested on animals for cosmetic purposes.

This raw material is in compliance with article 18 of the Cosmetics regulation (EC) No 1223/2009.

Disclaimer

All information in this document is to our best knowledge at the time of preparation, provided in good faith and believed to be accurate. It still may contain errors and may be incomplete.