SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : LIMPRO PARFUM CARD VANILLE
Product code : LIM-059

1.2. Relevant identified uses of the substance or mixture and uses advised against

Application : SU21 Consumer product. PC3 Air care products. Airfreshener.

1.3. Details of the supplier of the safety data sheet

Supplier : Dovox B.V.
Computerweg 3
3542 DP UTRECHT, The Netherlands
Telephone : +31-30-7116 824
Fax : +31-30-3100 141
E-mail : info@dovox.nl
Website : www.dovox.nl

1.4. Emergency telephone number

EMERGENCY TELEPHONE NUMBER, for DOCTORS/FIRE BRIGADE/POLICE only:
NL - Telephone : +31-30-7116 824 (During office hours only)

EMERGENCY TELEPHONE NUMBER (for DOCTORS only):
National Poisons Information Service +44 344 892 0111 (24/7)

SECTION 2 HAZARDS IDENTIFICATION

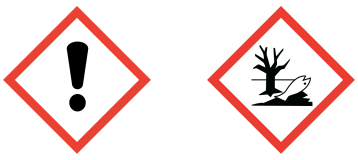
2.1. Classification of the substance or mixture

CLP classification (1272/2008/EC) : Eye irritation, category 2. Skin sensitization, category 1. Hazardous to the aquatic environment — Chronic category 2.

Human health hazards : May cause an allergic skin reaction. Causes serious eye irritation.
Physical/chemical hazards : Not classified as dangerous according to statutory EC-Directives.
Environmental hazards : Toxic to aquatic life with long lasting effects.

2.2. Label elements

Label elements (1272/2008/EC):
Hazard pictograms :



Signal word : Warning

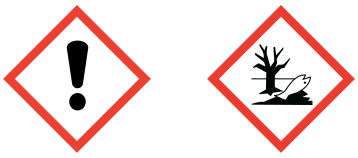
H- and P-phrases :

H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P280 hands eyes	Wear protective gloves and eye protection.

P302+P352	IF ON SKIN: Wash with plenty of water/soap.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P273	Avoid release to the environment.
P391	Collect spillage.
P501	Dispose of contents/container to an official chemical waste depot.

Labelling of packagings where the contents do not exceed 125 ml and it is technically impossible to list all phrases:

Hazard pictograms :



Signal word : Warning

H- and P-phrases :

H317	May cause an allergic skin reaction.
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P280 gloves	Wear protective gloves.
P302+P352	IF ON SKIN: Wash with plenty of water/soap.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container to an official chemical waste depot.

Additional labelling (for all packaging sizes)

: Contains: Benzyl salicylate ; alpha-Hexylcinnamaldehyde ; d-Limonene ; Coumarin ; p-Mentha-1,4(8)-diene ; Ethyl 2,3-epoxy-3-phenylbutyrate ; (-)-Pin-2(10)-ene ; Citral ; Isoeugenol .

2.3. Other hazards

Other information : Does not contain PBT or vPvB substances in concentrations higher than 0,1%.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.2. Mixtures

Product description : Mixture.

Information on hazardous substances:

Substance name	Concentration (w/w) (%)	CAS nr.	EC number	Remark	REACH nr.
Benzyl salicylate	10 - < 20	118-58-1	204-262-9		01-2119969442-31
alpha-Hexylcinnamaldehyde	2,5 - < 5	101-86-0	202-983-3		01-2119533092-50
2-Ethyl-3-hydroxy-4-pyrone	1 - < 5	4940-11-8	225-582-5		01-2120758795-36
Vanillin	1 - < 5	121-33-5	204-465-2		01-2119516040-60
d-Limonene	2,5 - < 5	5989-27-5	227-813-5		01-2119529223-47
Coumarin	0,1 - < 1	91-64-5	202-086-7		01-2119949300-45
Benzaldehyde	0,1 - < 1	100-52-7	202-860-4		01-2119455540-44
p-Mentha-1,4(8)-diene	0,25 - < 1	586-62-9	209-578-0		01-2119982325-32
1-(5,6,7,8-Tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	0,25 - < 1	21145-77-7	244-240-6		01-2119921100-61
Allyl heptanoate	0,1 - < 1	142-19-8	205-527-1		01-2119488961-23
Ethyl 2,3-epoxy-3-phenylbutyrate	0,1 - < 1	77-83-8	201-061-8		01-2119967770-28
(-)-Pin-2(10)-ene	0,25 - < 1	18172-67-3	242-060-2		01-2119519230-54
Citral	0,1 - < 1	5392-40-5	226-394-6		01-2119462829-23
Isoeugenol	0,001 - 0,01	97-54-1	202-590-7		

Substance name	Hazard Class	H-phrases	Pictograms	

Benzyl salicylate	Skin Sens. 1; Eye Irrit. 2; Aquatic Chronic 3	H317; H319; H412	GHS07; GHS09	
alpha-Hexylcinnamaldehyde	Skin Sens. 1B; Aquatic Acute 1; Aquatic Chronic 2	H317; H400; H411	GHS07; GHS09	M (acute) = 1
2-Ethyl-3-hydroxy-4-pyrone	Acute Tox. 4	H302	GHS07	
Vanillin	Eye Irrit. 2	H319	GHS07	
d-Limonene	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1B; Aquatic Acute 1; Aquatic Chronic 1	H226; H304; H315; H317; H400; H410	GHS02; GHS07; GHS08; GHS09	M (acute) = 1
Coumarin	Acute Tox. 4; Skin Sens. 1B; Aquatic Chronic 3	H302; H317; H412	GHS07	
Benzaldehyde	Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; Acute Tox. 4; STOT SE 3; Aquatic Chronic 3	H302; H315; H319; H332; H335; H412	GHS07	
p-Mentha-1,4(8)-diene	Asp. Tox. 1; Skin Sens. 1B; Aquatic Acute 1; Aquatic Chronic 1	H304; H317; H400; H410	GHS07; GHS08; GHS09	M (acute) = 1
1-(5,6,7,8-Tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	Acute Tox. 4; Aquatic Acute 1; Aquatic Chronic 1	H302; H400; H410	GHS07; GHS09	M (acute) = 1
Allyl heptanoate	Acute Tox. 3; Aquatic Acute 1; Aquatic Chronic 3	H301; H311; H400; H412	GHS06; GHS09	M (acute) = 1
Ethyl 2,3-epoxy-3-phenylbutyrate	Skin Sens. 1B; Aquatic Chronic 2	H317; H411	GHS07; GHS09	
(-)-Pin-2(10)-ene	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1B; Aquatic Acute 1; Aquatic Chronic 1	H226; H304; H315; H317; H400; H410	GHS02; GHS07; GHS08; GHS09	M (acute) = 1 M (chronic) = 1
Citral	Skin Irrit. 2; Skin Sens. 1B; Eye Irrit. 2	H315; H317; H319	GHS07	
Isoeugenol	Acute Tox. 4; Eye Irrit. 2; Skin Irrit. 2; Skin Sens. 1A; STOT SE 3	H312; H302; H332; H319; H315; H317; H335	GHS07	H317 : C >= 0.01 %

Occupational exposure limit(s), if relevant, are listed in section 8.

Reference is made to chapter 16 for full text of each relevant H phrase.

SECTION 4 FIRST-AID MEASURES

4.1. Description of first aid measures

First aid measures

Inhalation : Not applicable under normal conditions of use. Consult a doctor if victim feels unwell.

Skin contact : Take off contaminated clothing. Wash off skin with plenty of water and soap before product dries up. Consult a doctor if irritation occurs.

Eye contact : Wash out with (lukewarm) water. Remove contact lenses. Consult a doctor.

Ingestion : Do not induce vomiting. Do rinse the mouth. Give one glass of water. Never give anything by mouth to an unconscious person. Consult a doctor if victim feels unwell.

4.2. Most important symptoms and effects, both acute and delayed

Effects and symptoms

Inhalation	:	No specific effects and/or symptoms are known.
Skin contact	:	May cause redness and irritation, sensitisation. May produce an allergic reaction. May cause dry skin.
Eye contact	:	Irritant. May cause redness and pain.
Ingestion	:	May cause a feeling of sickness, vomiting and diarrhoea.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians : None known.

SECTION 5 FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Suitable	:	Carbondioxide (CO_2). Foam. Dry chemical. Water fog.
Not suitable	:	Water jet.

5.2. Special hazards arising from the substance or mixture

Special exposure hazards	:	None known.
Hazardous thermal decomposition products	:	Carbon monoxide may be evolved if incomplete combustion occurs.

5.3. Advice for firefighters

Special protective equipment for fire-fighters	:	Use adequate respiratory equipment in case of insufficient ventilation.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Danger of slipping. Clean up spills immediately. Wear shoes with non-slip soles. Avoid contact with spilled or released material. Vapours are heavier than air. Build up (of gasses) in low areas involves risk of suffocation.

6.2. Environmental precautions

Environmental precautions	:	Avoid release of product into sewers, surface water and/or ground water. In case of large spills: contain with dike. Waste product should not be allowed to contaminate soil or water.
Other information	:	Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Collect spilled material in containers. Dispose at an authorised waste collection point. Wash away remainder with plenty of water and soap.

6.4. Reference to other sections

Reference to other sections : See also section 8.

SECTION 7 HANDLING AND STORAGE

7.1. Precautions for safe handling

Handling : Handle in accordance with good occupational hygiene and safety practices in well-ventilated areas. Avoid contact with skin and eyes. Avoid splashing. Wear protective clothing.

7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep frost-free, in a cool, dry and well-ventilated place (< 35 °C). Keep away from oxidizing agents.
Recommended packaging : Keep only in the original container.
Non recommended packaging : None known.

7.3. Specific end use(s)

Use : Use only as directed.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits : Occupational exposure limits have not been established for this product. Derived no-effect levels (DNEL) have not been established for this product. Predicted no-effect concentrations (PNEC) have not been established for this product.

Workplace exposure limits (mg/m³):

Chemical name	Country	TWA 8 hour (mg/m3)	STEL 15 min (mg/m3)	Comments	Source
d-Limonene		28	80		MAC: DE, CH
Benzaldehyde		5			MAC: HU, BE, LT

Derived no-effect level (DNEL) for workers:

Chemical name	Route of exposure	DNEL, short-term		DNEL, long-term	
		Local effect	Systemic effect	Local effect	Systemic effect
Benzyl salicylate	Dermal				0,9 mg/kg bw/day
	Inhalation				3,17 mg/m3
alpha-Hexylcinnamaldehyde	Dermal	0,525 mg/kg bw		0,525 mg/kg bw/ day	18,2 mg/kg bw/day
	Inhalation	6,28 mg/m3			0,078 mg/m3
2-Ethyl-3-hydroxy-4-pyrone	Dermal				16,7 mg/kg bw/day
	Inhalation				58,7 mg/m3
d-Limonene	Inhalation				33,3 mg/m3
Coumarin	Dermal				0,79 mg/kg bw/day
	Inhalation				6,78 mg/m3
Benzaldehyde	Dermal			4,5 mg/kg bw/ day	34,7 mg/kg bw/day
	Inhalation			6,3 mg/m3	10,4 mg/m3
p-Mentha-1,4(8)-diene	Dermal				0,52 mg/kg bw/day
	Inhalation				3,6 mg/m3
Allyl heptanoate	Dermal				4,7 mg/kg bw/day
	Inhalation				16 mg/m3
Ethyl 2,3-epoxy-3-phenylbutyrate	Dermal				0,7 mg/kg bw/day
	Inhalation				2,45 mg/m3
(-)-Pin-2(10)-ene	Dermal				0,8 mg/kg bw/day
	Inhalation				5,69 mg/m3
Citral	Dermal				1,7 mg/kg bw/day
	Inhalation				9 mg/m3

Derived no-effect level (DNEL) for consumers:

Chemical name	Route of exposure	DNEL, short-term		DNEL, long-term	
		Local effect	Systemic effect	Local effect	Systemic effect
Benzyl salicylate	Dermal				0,45 mg/kg bw/day
	Inhalation				0,78 mg/m3
	Oral				0,45 mg/kg bw/day
alpha-Hexylcinnamaldehyde	Dermal	0,0787 mg/kg bw		0,0787 mg/kg bw/day	9,11 mg/kg bw/day
	Inhalation	4,71 mg/m3			0,019 mg/m3
	Oral				0,056 mg/kg bw/day
2-Ethyl-3-hydroxy-4-pyrone	Dermal				10 mg/kg bw/day
	Inhalation				17,4 mg/m3
	Oral				10 mg/kg bw/day
d-Limonene	Inhalation				8,33 mg/m3
	Oral				4,76 mg/kg bw/day
Coumarin	Dermal				0,39 mg/kg bw/day
	Inhalation				1,69 mg/m3
	Oral				0,39 mg/kg bw/day
Benzaldehyde	Dermal			2,7 mg/kg bw/day	20,8 mg/kg bw/day
	Inhalation			1,3 mg/m3	2,1 mg/m3
	Oral				25 mg/kg bw/day
p-Mentha-1,4(8)-diene	Dermal				0,26 mg/kg bw/day
	Inhalation				0,9 mg/m3
	Oral				0,26 mg/kg bw/day
Allyl heptanoate	Dermal				2,3 mg/kg bw/day
	Inhalation				4,1 mg/m3
	Oral				2,3 mg/kg bw/day
Ethyl 2,3-epoxy-3-phenylbutyrate	Dermal				0,35 mg/kg bw/day
	Inhalation				0,61 mg/m3
	Oral				0,35 mg/kg bw/day
(-)-Pin-2(10)-ene	Dermal				0,3 mg/kg bw/day
	Inhalation				1 mg/m3
	Oral				0,3 mg/kg bw/day
Citral	Dermal				1 mg/kg bw/day
	Inhalation				2,7 mg/m3
	Oral				0,6 mg/kg bw/day

Predicted no-effect concentration (PNEC):

Chemical name	Route of exposure	Fresh water	Marine water	
Benzyl salicylate	Water	0,00103 mg/l	0,00010 mg/l	
	Sediment	0,583 mg/kg	0,0583 mg/kg	
	Intermittent water			0,01030 mg/l
	STP			10 mg/l
	Soil			0,116 mg/kg
	Oral			80 mg/kg food
alpha-Hexylcinnamaldehyde	Water	0,03 mg/l	0,003 mg/l	
	Sediment	47,7 mg/kg	4,77 mg/kg	
	Intermittent water			0,03 mg/l
	STP			10 mg/l
	Soil			9,51 mg/kg
	Oral			6,6 mg/kg food
2-Ethyl-3-hydroxy-4-pyrone	Water	0,0072 mg/l	0,00072 mg/l	
	Sediment	0,27 mg/kg	0,027 mg/kg	
	STP			1,55 mg/l

	Soil			0,049 mg/kg
Vanillin	Water	0,118 mg/l	0,0118 mg/l	
	Sediment	58,22 mg/kg	5,822 mg/kg	
	STP			10 mg/l
	Soil			11,54 mg/kg
d-Limonene	Water	0,0054 mg/l	0,0005 mg/l	
	Sediment	1,32 mg/kg	0,13 mg/kg	
	STP			1,8 mg/l
	Soil			0,262 mg/kg
	Oral			3,33 mg/kg food
Coumarin	Water	0,019 mg/l	0,0019 mg/l	
	Sediment	0,15 mg/kg	0,015 mg/kg	
	Intermittent water			0,0142 mg/l
	STP			6,4 mg/l
	Soil			0,018 mg/kg
	Oral			30,7 mg/kg food
Benzaldehyde	Water	0,00107 mg/l	0,00010 mg/l	
	Sediment	0,01044 mg/kg	0,00104 mg/kg	
	Intermittent water			0,0107 mg/l
	STP			7,59 mg/l
	Soil			0,00593 mg/kg
p-Mentha-1,4(8)-diene	Water	0,0006 mg/l	0,00006 mg/l	
	Sediment	0,147 mg/kg	0,0147 mg/kg	
	STP			0,2 mg/l
	Soil			0,021 mg/kg
	Oral			10,31 mg/kg food
Allyl heptanoate	Water	0,00012 mg/l	0,000012 mg/l	
	Sediment	0,012 mg/kg	0,0012 mg/kg	
	Intermittent water			0,0012 mg/l
	STP			10 mg/l
	Soil			0,00233 mg/kg
	Oral			51,78 mg/kg food
Ethyl 2,3-epoxy-3-phenylbutyrate	Water	0,0084 mg/l	0,0084 mg/l	
	Sediment	0,214 mg/kg	0,0214 mg/kg	
	Intermittent water			0,084 mg/l
	STP			10 mg/l
	Soil			0,0378 mg/kg
	Oral			23,3 mg/kg food
(-)-Pin-2(10)-ene	Water	0,001 mg/l	0,0001 mg/l	
	Sediment	0,337 mg/kg	0,034 mg/kg	
	STP			3,26 mg/l
	Soil			0,067 mg/kg
	Oral			13,1 mg/kg food
Citral	Water	0,00678 mg/l	0,000678 mg/l	
	Sediment	0,125 mg/kg	0,0125 mg/kg	
	Intermittent water			0,0678 mg/l
	STP			1,6 mg/l
	Soil			0,0209 mg/kg

8.2. Exposure controls

Engineering measures : Comply with standard precautionary measures for working with chemicals.
Hygienic measures : When using do not eat, drink or smoke.

Personal protective equipment:
The efficiency of personal protective equipment depends among other things on temperature and degree of ventilation. Always get professional advice for the particular local situation.

:

Body protection	:	Wear appropriate protective clothing, overalls or suit, and similar boots in accordance with EN 365/367 resp. 345. Suitable material: nitril. Indication of permeation breakthrough time: not known.
Respiratory protection	:	Take care of sufficient ventilation. Wear suitable respiratory protection in case of large scale exposure. Suitable: gas filter type A (brown), class I or higher on e.g. a facemask in accordance with EN 140.
Hand protection	:	Wear appropriate safety gloves in accordance with EN 374. Suitable material: nitril. ± 0,5 mm. Indication of permeation breakthrough time: not known.
Eye protection	:	Wear appropriate safety glasses with side shields, in accordance with EN 166, when there is danger of possible eye contact.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	:	Liquid.	Impregnated material.
Colour	:	Light yellow.	
Odour	:	Perfumed.	
Odour threshold	:	Not known.	
pH	:	Not applicable.	Waterfree product.
Solubility in water	:	Not soluble.	
Partition coefficient (n-octanol/water)	:	Not applicable.	Not measured. Not relevant for mixtures.
Flash point	:	> 100 °C	
Flammability (solid, gas)	:	Not applicable.	Liquid. See flashpoint.
Auto ignition temperature	:	> 190 °C	
Boiling point/boiling range	:	> 100 °C	
Melting point/melting range	:	< 0 °C	
Explosive properties	:	None known.	Does not contain explosives.
Explosion limits (% in air)	:	Not known.	Lower explosion limit in air (%): 0,7 (d-Limonene)
	:		Upper explosion limit in air (%): 6,5 (d-Limonene)
Oxidising properties	:	Not applicable.	Does not contain oxidizing substances.
Decomposition temperature	:	Not known.	
Viscosity (20°C)	:	Not known.	
Viscosity (40°C)	:	Not relevant.	The product contains < 10% substances having an aspiration hazard.
Vapour pressure (20°C)	:	Not known.	
Vapour density (20°C)	:	> 1	(air = 1)
Relative density (20°C)	:	1 g/ml	
Evaporation rate	:	< 1	(n-butyl acetate = 1)

9.2. Other information

Other information	:	Not relevant.

SECTION 10 STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity	:	See sub-sections below.

10.2. Chemical stability

Stability : Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reactivity : No other hazardous reactions known.

10.4. Conditions to avoid

Conditions to avoid : See section 7.

10.5. Incompatible materials

Materials to avoid : Keep away from oxidizing agents.

10.6. Hazardous decomposition products

Hazardous decomposition products : Not known.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

No toxicological research has been carried out on this product.

Inhalation

- Acute toxicity : Calculated LC50: > 10 mg/l. Ingredients of unknown toxicity: 69 %. ATE: > 5 mg/l. Not classified - based on available data, the classification criteria are not met.
- Corrosion/irritation : Not classified - based on available data, the classification criteria are not met.
- Sensitisation : Does not contain substances classified as respiratory sensitiser. Not classified - based on available data, the classification criteria are not met.
- Carcinogenicity : Not expected to be carcinogenic. Not classified - based on available data, the classification criteria are not met.
- Mutagenicity : Not expected to be mutagenic. Not classified - based on available data, the classification criteria are not met.

Skin contact

- Acute toxicity : Calculated LD50: > 5000 mg/kg.bw. Ingredients of unknown toxicity: < 1 %. ATE: > 2000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.
- Corrosion/irritation : Not classified - based on available data, the classification criteria are not met.
- Sensitisation : May cause sensitisation by skin contact. May produce an allergic reaction.
- Mutagenicity : Not expected to be mutagenic. Not classified - based on available data, the classification criteria are not met.

Eye contact

- Corrosion/irritation : Irritant.

Ingestion

- Acute toxicity : Calculated LD50: > 3937 mg/kg.bw. Ingredients of unknown toxicity: < 1 %. ATE: > 2000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.
- Aspiration : Contains a substance/substances with an aspiration hazard. Not classified - based on available data, the classification criteria are not met.
- Corrosion/irritation : May cause a feeling of sickness, vomiting and diarrhoea.
- Carcinogenicity : Not expected to be carcinogenic. Not classified - based on available data, the classification criteria are not met.
- Mutagenicity : Not expected to be mutagenic. Not classified - based on available data, the classification criteria are not met.
- Reprotoxicity : Development: Not expected to be reprotoxic. Development: Not classified - Based on available data, the classification criteria are not met. Fertility: not expected to be reprotoxic. Fertility: Not classified - based on available data, the classification criteria are not met.

Toxicological information:

Chemical name	Property		Method	Test animal
Benzyl salicylate	LD50 (oral)	2227 mg/kg bw	-----	Rat
	Skin sensitisation	725 ug/cm2	OECD 429	Mouse
	Skin irritation	Non-irritant	-----	Rabbit
	NOAEL (oral) - estimate	> 360 mg/kg bw/d	Read across	Rat
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	NOAEL (fertility) - estimate	180 mg/kg.d	Read across	Rat
	NOAEL (development) - estimate	> 360 mg/kg.d	Read across	Rat
	Eye irritation	Moderately irritant	-----	Rabbit
alpha-Hexylcinnamaldehyde	NOAEL (development, oral)	100 mg/kg bw/d	OECD 421	Rat
	Genotoxicity - in vivo	Not genotoxic	OECD 474	
	Genotoxicity - in vitro	Not genotoxic	OECD 476	
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Eye irritation	Non-irritant		Rabbit
	NOAEL (oral) - estimate	30 mg/kg bw/d	Read across	Rat
	LD50 (dermal)	> 3000 mg/kg bw	OECD 402	Rabbit
	LC50 (inhalation)	> 5000 mg/m3	OECD 403	Rat
	LD50 (oral)	> 2450 mg/kg bw	OECD 401	Rat
	Skin sensitisation	2372 ug/cm2	OECD 429	Mouse
	Skin irritation	Moderately irritant	OECD 404	Rabbit
	NOAEL (dermal)	25 mg/kg bw/d		Rat
Vanillin	LD50 (oral)	> 3500 mg/kg bw	-----	Rat
	LD50 (dermal)	> 5010 mg/kg bw		Rabbit
	Skin sensitisation	Sensitizing.		Guinea pig
	Skin irritation	Non-irritant	-----	Rabbit
	Eye irritation	Slightly irritant	-----	Rabbit
	NOEL (carcinogenicity, oral)	Not carcinogenic	-----	Rat
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	NOEL (oral)	2500 mg/kg bw/d		Rat
	NOAEL (development, oral)	> 500 mg/kg bw/d	-----	Rat
	Genotoxicity - in vitro	Not genotoxic	OECD 473	
	NOAEL (oral)	> 650 mg/kg bw/d	OECD 408	Rat
d-Limonene	NOAEL (oral)	150 mg/kg bw/d		Rat
	Genotoxicity - in vitro	Not genotoxic		
	LD50 (oral)	4400 mg/kg bw	-----	Rat
	LD50 (dermal)	> 2000 mg/kg bw	-----	Rabbit
	Skin irritation	Irritant	-----	-----
	NOAEL (development, oral)	600 mg/kg bw/d		Rat
	Skin sensitisation	10075 ug/cm2	OECD 429	Mouse
	Mutagenicity	Negative	OECD 471	
	Eye irritation	Non-irritant	OECD 405	Rabbit
	NOEL (carcinogenicity, oral)	> 300 mg/kg bw/d	OECD 451	Rat
	Genotoxicity - in vivo	> 2000 mg/kg bw/d		Rat
Coumarin	Skin sensitisation	> 12500 ug/cm2	OECD 429	Mouse
	NOAEL (development, oral)	> 115 mg/kg bw/d		Mouse

	Eye irritation	Non-irritant		Rabbit
	LD50 (oral)	680 mg/kg bw	-----	Rat
	NOAEL (oral)	> 138,3 mg/kg bw/d		Mouse
	Skin irritation	Non-irritant		Rabbit
	Genotoxicity - in vitro	Not genotoxic	OECD 476	
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Genotoxicity - in vivo	> 105 mg/kg bw/d	OECD 474	Mouse
	NOEL (carcinogenicity) - estimate	Not carcinogenic		
p-Mentha-1,4(8)-diene	NOAEL (oral) - estimate	1200 mg/kg bw/d	Read across	
	Genotoxicity - in vitro	Not genotoxic		
	NOAEL (development) - estimate	591 mg/kg.d	Read across	
	NOAEL (fertility) - estimate	> 500 mg/kg.d	Read across	
	NOEL (carcinogenicity) - estimate	Not carcinogenic		
	LD50 (oral) - estimate	1200 mg/kg bw	Read across	
	Skin sensitisation	Not sensitizing	OECD 406	Guinea pig
	LD50 (oral)	3860 mg/kg bw		Rat
	LD50 (dermal)	> 5000 mg/kg bw		Rabbit
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
Ethyl 2,3-epoxy-3-phenylbutyrate	NOEL (carcinogenicity, oral)	35 mg/kg bw/d		Rat
	LD50 (oral)	5000 mg/kg bw		Rat
	NOEL (oral)	35 mg/kg bw/d		Rat
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Skin irritation	Non-irritant	OECD 429	
	LD50 (dermal)	> 2000 mg/kg bw	OECD 402	Rat
	Genotoxicity - in vivo	Negative		Mouse
	Eye irritation	Non-irritant	OECD 405	Rabbit
	NOAEL (developmental toxicity, dermal)	> 1000 mg/kg bw/d	OECD 421	Rat
	Skin sensitisation	Sensitizing.	OECD 406	Guinea pig
	NOAEL (oral)	> 35 mg/kg bw/d		Rat
	NOAEL (dermal)	1000 mg/kg bw/d	OECD 421	Rat
	NOAEL (fertility, dermal)	> 1000 mg/kg bw/d	OECD 421	Rat
(-)-Pin-2(10)-ene	LD50 (oral) - estimate	> 2000 mg/kg bw	Read across	Rat
	LD50 (dermal) - estimate	> 5000 mg/kg bw	Read across	Rabbit
	Mutagenicity - estimate	Not mutagenic	Read across	Salmonella typhimurium
Citral	NOAEL (fertility, oral)	> 1000 mg/kg bw/d	OECD 421	Rat
	Genotoxicity - in vivo	Negative	OECD 474	Mouse
	Eye irritation	Slightly irritant	OECD 405	Rabbit
	Skin irritation	Moderately irritant		Rabbit
	Skin irritation	Irritant		Human
	Skin sensitisation	Sensitizing.	OECD 406	Guinea pig
	NOAEL (developmental toxicity, inh.)	423 mg/m3	-----	Rat
	NOEL (carcinogenicity, oral)	> 100 mg/kg bw/d	OECD 453	Rat
	Mutagenicity	Negative	OECD 471	
	LD50 (oral)	4960 mg/kg bw	-----	Rat
	Genotoxicity - in vitro	Not genotoxic		

	NOAEL (oral)	833 mg/kg bw/d	-----	Rat
	LD50 (dermal)	2250 mg/kg bw	-----	Rabbit
	NOAEL (development, oral)	200 mg/kg bw/d	OECD 421	Rat
Isoeugenol	LD50 (dermal) - estimate	1912 mg/kg bw		
	LC50 (inhalation) - estimate	1500 mg/m3		
	LD50 (oral)	1560 mg/kg bw	-----	Rat
	Mutagenicity	Negative	-----	Salmonella typhimurium
	NOEL (carcinogenicity, oral)	Not carcinogenic	-----	Rat
	Skin irritation	Severely irritant		Rabbit
	Skin irritation	Moderately irritant	-----	Human
	Skin sensitisation	498 ug/cm2	OECD 429	Mouse

SECTION 12 ECOLOGICAL INFORMATION

12.1. Toxicity

No ecotoxicological research has been carried out on this product.

Ecotoxicity : Toxic to aquatic organisms. Calculated LC50 (fish): 3 mg/l. Calculated EC50 (waterflea): 4 mg/l. Contains 0 % of components with unknown hazards to the aquatic environment.

12.2. Persistence and degradability

Persistence – degradability : May cause long-term adverse effects in the aquatic environment.

12.3. Bioaccumulative potential

Bioaccumulative potential : No specific information known.

12.4. Mobility in soil

Mobility : Adsorbs to soil and has low mobility.

12.5. Results of PBT and vPvB ass

PBT/vPvB assessment : Does not contain PBT or vPvB substances in concentrations higher than 0,1%.

12.6. Other adverse effects

Other information : Not applicable.

Ecological information:

Chemical name	Property		Method	Test animal
alpha-Hexylcinnamaldehyde	LC50 (fish)	1,7 mg/l	OECD 203	Pimephales promelas
	IC50 (algea)	> 0,32 mg/l	OECD 201	Desmodesmus subspicatus
	Ultimate aerobic biodegradation (%)	97 %	OECD 301 F	
	NOEC (fish)	0,93 mg/l	OECD 203	Pimephales promelas
	Log P(ow)	5,3		
d-Limonene	LC50 (fish)	0,720 mg/l	OECD 203	Pimephales promelas
	EC50 (waterflea)	0,36 mg/l	OECD 202	Daphnia magna
	Ultimate aerobic biodegradation (%)	> 92 %		
	NOEC (waterflea) - chronic	0,15 mg/l.d		Daphnia magna

	Log P(ow)	4,38		
p-Mentha-1,4(8)-diene	LC50 (fish)	1,21 mg/l		Pimephales promelas
	EC50 (waterflea)	1,38 mg/l		Daphnia magna
	Ultimate aerobic biodegradation (%)	62,1 %	OECD 301 B	
	Log P(ow)	5,1000		
1-(5,6,7,8-Tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	LC50 (fish)	0,314 mg/l		-----
	EC50 (waterflea)	0,244 mg/l	-----	Daphnia magna
	IC50 (algea)	0,8 mg/l		
	Log P(ow)	5,7000		
(-)-Pin-2(10)-ene	LC50 (fish) - estimate	> 0,1 mg/l		
	EC50 (waterflea) - estimate	> 0,1 mg/l		
	Log P(ow)	4,35		

SECTION 13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product residues : Do not dispose empty pack with waste produced by households. Containers may be recycled. Treat product residues, impregnated wipes and non-empty pack as hazardous waste.

Additional warning : None.

Waste water discharge : Do not dispose into the environment, in drains or in water courses.

European waste catalogue : Dispose hazardous waste in accordance with Directive 91/689/EEC under acknowledgement of a waste code according to Commission Decision 2000/532/EC to an official chemical waste depot.

Local legislation : Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

SECTION 14 TRANSPORT INFORMATION

14.1. UN number

UN nr. : UN 3082

14.2. UN proper shipping name

Transport name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (d-Limonene ; alpha-Hexylcinnamaldehyde)

Transport name (IMDG, IATA) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (d-Limonene ; alpha-Hexylcinnamaldehyde)

14.3/14.4/14.5. Transport hazard class(es)/Packing group/Environmental hazards

Class

- Classification code : M6
- Packaging group : III
- Danger label : 9 + the “environmentally hazardous substance” mark.
- Tunnel restriction code : C/D

:

Other information	:	Not intended for carriage by tank-vessels on inland waterways. This product is not regulated as a dangerous good when transported in sizes of <= 5 L or <= 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 (Special provisions 375).

IMDG (sea)

Class	:	9
Packaging group	:	III
EmS (fire / spill)	:	F - A / S - F
Marine pollutant	:	Yes
Other information	:	This product is not regulated as a dangerous good when transported in sizes of <= 5 L or <= 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 (IMDG code 37-14, 2.10.2.7).

IATA (air)

Class	:	9

14.6. Special precautions for user

Other information	:	Country specific variations may apply. It is possible that a "Limited Quantity" exemption applies to the transport of this product.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Marpol	:	Not intended to be carried in bulk according to International Maritime Organisation (IMO) instruments. Packaged liquids are not considered bulk.

SECTION 15 REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Community regulations	:	Regulation (EU) No 2015/830 (REACH), Regulation (EC) No 1272/2008 (CLP) and other regulations.

15.2. Chemical safety assessment

Chemical safety assessment	:	Not applicable.

SECTION 16 OTHER INFORMATION

16.1. Other information

The information in this safety data sheet is compiled in compliance with Regulation (EU) No 2015/830 dated 28 May 2015 and accurate to the best of our knowledge and experience at the date of issue specified. It is the user's obligation to use this product safely and to comply with all applicable laws and regulations concerning the use of the product. This safety data sheet complements the technical information sheets but does not replace them and offers no warranty with regard to product properties.

Users are also forewarned for any hazards involved when the product is used for other purposes than those for which it is designed.

Changed or new information with regard to the previous release is indicated with an asterisk (*).

List of abbreviations and acronyms that could be (but not necessarily are) used in this safety data sheet:

ADR	:	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	:	Acute Toxicity Estimate
CLP	:	Classification, Labeling & Packaging
CMR	:	Carcinogenic, Mutagenic or toxic for Reproduction
EEC	:	European Economic Community

GHS	:	Globally Harmonized System of Classification and Labelling of Chemicals
IATA	:	International Air Transport Association
IBC code	:	International Bulk Chemical Code
IMDG	:	International Maritime Dangerous Goods Code
LD50/LC50	:	Lethal Dose/Concentration for 50% of a population
MAC	:	Maximum Allowable Concentration
MARPOL	:	International Convention for the Prevention of Pollution From Ships
NO(A)EL	:	No Observed (Adverse) Effect Level
OECD	:	Organisation for Economic Co-operation and Development
PBT	:	Persistent, Bioaccumulative and Toxic
PC	:	Chemical product category
PT	:	Product type
REACH	:	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	:	Regulations concerning the International Carriage of Dangerous Goods by Rail
STP	:	Sewage Treatment Plant
SU	:	Sector of Use
TWA/STEL	:	Time-Weighted Average/Short Term Exposure Limit
UN	:	United Nations
VOC	:	Volatile Organic Compounds
vPvB	:	Very Persistent and Very Bioaccumulative

Key data used to compile the Safety Data Sheet are from, but not limited to, one or more sources of information e.g. toxicological data from material suppliers, CONCAWE, IFRA, CESIO, Regulation EG 1272/2008, etc.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008:

Eye Irrit. 2	:	Calculation method.
Skin Sens. 1/1A/1B	:	Calculation method.
Aquatic Chronic 2	:	Calculation method.

Full text of hazard classes mentioned in section 3:

Flam. Liq. 3	:	Flammable liquid, category 3.
Acute Tox. 3	:	Acute toxicity, category 3.
Acute Tox. 4	:	Acute toxicity, category 4.
Skin Irrit. 2	:	Skin irritation, category 2.
Eye Irrit. 2	:	Eye irritation, category 2.
Skin Sens. 1/1A/1B	:	Skin sensitization, category 1/1A/1B.
Asp. Tox. 1	:	Aspiration hazard, category 1.
Aquatic Chronic 1	:	Hazardous to the aquatic environment — Chronic category 1.
Aquatic Chronic 2	:	Hazardous to the aquatic environment — Chronic category 2.
Aquatic Chronic 3	:	Hazardous to the aquatic environment — Chronic category 3.
Aquatic Acute 1	:	Hazardous to the aquatic environment — Acute category 1.

Full text of H-phrases mentioned in section 3:

H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Advice on any training appropriate for workers: none.

Number format	:	"," used as decimal separator.

End of safety data sheet.