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

1.1. Product identifier

Product name : ALEFIA SCENTED CANDLE WOODY & FLORAL
Product code : ALE-063

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

Application : SU21 Consumer product. PC3 Airfreshener. Scented candle.

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) : Skin sensitization, category 1. Hazardous to the aquatic environment — Chronic category 3.

Human health hazards : May cause an allergic skin reaction.
Physical/chemical hazards : Not classified as dangerous according to statutory EC-Directives.
Environmental hazards : Harmful 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.
H412	Harmful 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 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.
P273	Avoid release to the environment.

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.
H412	Harmful 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 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: 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphtyl)ethan-1-one ; Benzyl salicylate ; Linalool ; Linalyl acetate ; Piperonal ; (Ethoxymethoxy)cyclododecane ; Isoeugenol .

: Contains 5 % of components with unknown hazards to the aquatic environment.

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.
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphtyl)ethan-1-one	1 - < 2,5	54464-57-2	259-174-3		01-2119489989-04
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	0,25 - < 1	1222-05-5	214-946-9		01-2119488227-29
Benzyl salicylate	0,1 - < 1	118-58-1	204-262-9		01-2119969442-31
Linalool	0,1 - < 1	78-70-6	201-134-4		01-2119474016-42
Linalyl acetate	0,1 - < 1	115-95-7	204-116-4		01-2119454789-19
Piperonal	0,1 - < 1	120-57-0	204-409-7		01-2119983608-21
Reaction mass of: (E)-oxacyclohexadec-12-en-2-one; (E)-oxacyclohexadec-13-en-2-one	0,1 - < 0,25	34902-57-3	422-320-3		01-0000016883-62
(Ethoxymethoxy)cyclododecane	0,1 - < 1	58567-11-6	261-332-1		01-2119971571-34
Oxydipropanol	0,1 - < 1	25265-71-8	246-770-3	MAC	
[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	0,025 - < 0,1	469-61-4	207-418-4		

Isoeugenol	< 0,01	97-54-1	202-590-7		

Substance name	Hazard Class	H-phrases	Pictograms	
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphtyl)ethan-1-one	Skin Irrit. 2; Skin Sens. 1B; Aquatic Chronic 1	H315; H317; H410	GHS07; GHS09	M (chronic) = 1
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	Aquatic Acute 1; Aquatic Chronic 1	H400; H410	GHS09	M (chronic) = 1
Benzyl salicylate	Skin Sens. 1; Eye Irrit. 2; Aquatic Chronic 3	H317; H319; H412	GHS07; GHS09	
Linalool	Skin Irrit. 2; Eye Irrit. 2; Skin Sens. 1B	H315; H317; H319	GHS07	
Linalyl acetate	Skin Irrit. 2; Skin Sens. 1B; Eye Irrit. 2	H315; H317; H319	GHS07	
Piperonal	Skin Sens. 1	H317	GHS07	
Reaction mass of: (E)-oxacyclohexadec-12-en-2-one; (E)-oxacyclohexadec-13-en-2-one	Aquatic Acute 1; Aquatic Chronic 1	H400; H410	GHS09	M (acute) = 1 M (chronic) = 1
(Ethoxymethoxy)cyclododecane	Skin Irrit. 2; Skin Sens. 1B; Aquatic Chronic 2	H315; H317; H411	GHS07; GHS09	
Oxydipropanol	-----	-----	-----	
[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	Asp. Tox. 1; Aquatic Acute 1; Aquatic Chronic 1	H304; H400; H410	GHS08; GHS09	M (acute) = 10 M (chronic) = 10
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 if irritation persists.

Ingestion : Do not induce vomiting. Give nothing to drink. Do rinse the mouth. 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 : May cause stinging of eyes and redness.

Ingestion : May cause a feeling of sickness, vomiting and diarrhoea. May cause lung damage, sore throat and lack of breath.

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 (CO2). 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.

6.2. Environmental precautions

Environmental precautions : Avoid release of product into sewers, surface water and/or ground water. 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. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Avoid contact with skin and eyes. Wear protective clothing.

7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep 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
Oxydipropanol		67	-		MAC: DE

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
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphtyl)ethan-1-one	Dermal	0,1011 mg/kg bw			1,73 mg/kg bw/day
	Inhalation				1,76 mg/m3
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	Dermal				28,85 mg/kg bw/day
	Inhalation				5,29 mg/m3
Benzyl salicylate	Dermal				0,9 mg/kg bw/day
	Inhalation				3,17 mg/m3
Linalool	Dermal		5 mg/kg bw		2,5 mg/kg bw/day
	Inhalation		16,5 mg/m3		2,8 mg/m3
Linalyl acetate	Dermal	0,2362 mg/kg bw		0,2362 mg/kg bw/day	2,5 mg/kg bw/day
	Inhalation				2,75 mg/m3
Piperonal	Dermal				0,5 mg/kg bw/day
	Inhalation				3,5 mg/m3
(Ethoxymethoxy)cyclododecane	Dermal				3,3 mg/kg bw/day
	Inhalation				23,5 mg/m3
Oxydipropanol	Dermal				84 mg/kg bw/day
	Inhalation				238 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
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphtyl)ethan-1-one	Dermal	0,0506 mg/kg bw			0,86 mg/kg bw/day
	Inhalation				0,43 mg/m3
	Oral				0,25 mg/kg bw/day
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	Dermal				14,43 mg/kg bw/day
	Inhalation				1,3 mg/m3
	Oral				0,75 mg/kg bw/day
Benzyl salicylate	Dermal				0,45 mg/kg bw/day
	Inhalation				0,78 mg/m3
	Oral				0,45 mg/kg bw/day
Linalool	Dermal		2,5 mg/kg bw	15 mg/kg bw/day	1,25 mg/kg bw/day
	Inhalation		4,1 mg/m3		0,7 mg/m3

	Oral		1,2 mg/kg bw		0,2 mg/kg bw/day
Linalyl acetate	Dermal	0,2362 mg/kg bw		0,2362 mg/kg bw/day	1,25 mg/kg bw/day
	Inhalation				0,68 mg/m3
	Oral				0,2 mg/kg bw/day
Piperonal	Dermal				0,25 mg/kg bw/day
	Inhalation				0,87 mg/m3
	Oral				0,25 mg/kg bw/day
(Ethoxymethoxy)cyclododecane	Dermal				1,67 mg/kg bw/day
	Inhalation				5,8 mg/m3
	Oral				1,67 mg/kg bw/day
Oxydipropanol	Dermal				51 mg/kg bw/day
	Inhalation				70 mg/m3
	Oral				24 mg/kg bw/day

Predicted no-effect concentration (PNEC):

Chemical name	Route of exposure	Fresh water	Marine water	
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	Water	0,0044 mg/l	0,0004 mg/l	
	Sediment	2 mg/kg	0,394 mg/kg	
	Intermittent water			0,047 mg/l
	STP			1 mg/l
	Soil			0,31 mg/kg
	Oral			3,3 mg/kg food
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
Linalool	Water	0,2 mg/l	0,02 mg/l	
	Sediment	2,22 mg/kg	0,222 mg/kg	
	Intermittent water			2 mg/l
	STP			10 mg/l
	Soil			0,327 mg/kg
	Oral			7,8 mg/kg food
Linalyl acetate	Water	0,011 mg/l	0,001 mg/l	
	Sediment	0,609 mg/kg	0,061 mg/kg	
	Intermittent water			0,11 mg/l
	STP			10 mg/l
	Soil			0,115 mg/kg
Piperonal	Water	0,0025 mg/l	0,00025 mg/l	
	Sediment	0,0119 mg/kg	0,0012 mg/kg	
	Intermittent water			0,025 mg/l
	STP			10 mg/l
	Soil			0,00084 mg/kg
(Ethoxymethoxy)cyclododecane	Water	0,0016 mg/l	0,00016 mg/l	
	Sediment	2,35 mg/kg	0,235 mg/kg	
	Intermittent water			0,016 mg/l
	STP			100 mg/l
	Soil			0,468 mg/kg
	Oral			33,3 mg/kg food
Oxydipropanol	Water	0,1 mg/l	0,01 mg/l	
	Sediment	0,238 mg/kg	0,0238 mg/kg	
	Intermittent water			1 mg/l
	STP			1000 mg/l

	Soil Oral			0,0253 mg/kg 313 mg/kg food

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.
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 when there is danger of possible eye contact.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	: Solid.	
Colour	: White.	
Odour	: Perfumed.	
Odour threshold	: Not known.	
pH	: Not applicable.	Solid.
Solubility in water	: Not soluble.	
Partition coefficient (n-octanol/water)	: Not applicable.	Not measured. Not relevant for mixtures.
Flash point	: Not relevant.	Solid.
Flammability (solid, gas)	: Not flammable.	Not easily ignitable.
Auto ignition temperature	: > 200 °C	
Boiling point/boiling range	: > 100 °C	
Melting point/melting range	: > 30 °C	
Explosive properties	: None known.	Does not contain explosives.
Explosion limits (% in air)	: Not known.	
Oxidising properties	: Not applicable.	Does not contain oxidizing substances.
Decomposition temperature	: Not applicable.	
Viscosity (20°C)	: Not applicable.	Solid.
Vapour pressure (20°C)	: Very low.	Solid.
Vapour density (20°C)	: > 1	(air = 1)
Relative density (20°C)	: Not known.	
Evaporation rate	: Very low. Solid.	

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: 96 %. ATE: > 5 mg/l. Not classified due to lack of data.
- 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 classified - based on available data, the classification criteria are not met.
- Mutagenicity : Not classified - based on available data, the classification criteria are not met.

Skin contact

- Acute toxicity : Calculated LD50: > 3894 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 : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

Eye contact

- Corrosion/irritation : Slight irritation possible. Not classified - based on available data, the classification criteria are not met.

Ingestion

- Acute toxicity : Calculated LD50: > 4552 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 : Not expected to be an aspiration hazard. 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, stomachache, vomiting and diarrhoea.
- Carcinogenicity : Not expected to be carcinogenic. Not classified - based on available data, the classification criteria are not met.

Mutagenicity : Does not contain mutagenic substances. 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
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphtyl)ethan-1-one	Skin irritation	Non-irritant	-----	Rabbit
	Skin sensitisation	6825 ug/cm2	OECD 429	Mouse
	LD50 (oral)	> 5000 mg/kg bw	-----	Rat
	LD50 (dermal)	> 5000 mg/kg bw	-----	Rat
	Mutagenicity	Not mutagenic	OECD 471	-----
	NOAEL (development, oral)	480 mg/kg bw/d	OECD 414	Rat
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
Linalool	NOAEL (development, oral)	365 mg/kg bw/d	-----	Rat
	Eye irritation	Non-irritant	OECD 405	Rabbit
	Skin sensitisation	12650 ug/cm2	OECD 429	Mouse
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	NOAEL (fertility, oral)	500 mg/kg bw/d		Rat
	Skin irritation	Irritant	OECD 404	Rabbit
	NOAEL (dermal)	250 mg/kg bw/d	OECD 411	Rat
	Genotoxicity - in vivo	Not genotoxic	OECD 475	Mouse
	LD50 (dermal)	5610 mg/kg bw	-----	Rabbit
	Skin irritation	Mildly irritant	-----	Human
	LD50 (oral)	2790 mg/kg bw	-----	Rat
	NOAEL (oral)	117 mg/kg bw/d	-----	Rat
Linalyl acetate	LC50 (inhalation) - estimate	> 5000 mg/m3	-----	Rat
	NOAEL (development, oral)	> 1000 mg/kg bw/d	OECD 414	Rat
	Genotoxicity - in vivo	Not genotoxic	OECD 474	Mouse
	Genotoxicity - in vitro	Not genotoxic	OECD 476	Mouse
	Mutagenicity	Not mutagenic	OECD 471	Salmonella typhimurium
	NOAEL (dermal)	250 mg/kg bw/d	OECD 411	Rat
	NOAEL (oral)	160 mg/kg bw/d	OECD 407	Rat
	Eye irritation	Irritant	OECD 405	Rabbit
	Skin irritation	Irritant	OECD 404	Rabbit
	Skin irritation	Non-irritant	-----	Human
	LC50 (inhalation)	> 2740 mg/m3	-----	Mouse
	Skin sensitisation	Sensitizing.	OECD 429	Mouse
	LD50 (oral)	13934 mg/kg bw	-----	Rat
		1000 mg/kg bw/d	OECD 414	Rat

Piperonal	LD50 (dermal)	> 5000 mg/kg bw	OECD 402	Rat
	LD50 (oral)	2700 mg/kg bw	OECD 401	Rat
	NOAEL (oral)	500 mg/kg bw/d	OECD 408	Rat
	NOEL (carcinogenicity, oral)	250 mg/kg bw/d	OECD 453	Rat
	Genotoxicity - in vitro	Not genotoxic	OECD 473	Chinese Hamster
	Genotoxicity - in vivo	Not genotoxic	OECD 478	Mouse
	Skin irritation	Slightly irritant	-----	Guinea pig
	Eye irritation	Non-irritant	OECD 405	Rabbit
	NOAEL (fertility, oral)	250 mg/kg bw/d	OECD 478	Rat
	Skin sensitisation	Sensitizing.		Guinea pig
	NOAEL (development, oral)	250 mg/kg bw/d	OECD 421	Rat
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
(Ethoxymethoxy)cyclododecane	LD50 (oral)	> 5000 mg/kg bw	OECD 401	Rat
	LD50 (dermal)	> 5000 mg/kg bw	OECD 402	Rabbit
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Genotoxicity - in vitro	Not genotoxic	OECD 476	Chinese Hamster
	Skin irritation	Irritant	OECD 404	Rabbit
	Eye irritation	Non-irritant	OECD 405	Rabbit
	NOAEL (oral)	1000 mg/kg bw/d	OECD 422	Rat
	NOAEL (development, oral)	1000 mg/kg bw/d	OECD 422	Rat
	NOAEL (fertility, oral)	1000 mg/kg bw/d	OECD 422	Rat
	Skin sensitisation	Sensitizing.	OECD 429	Mouse
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 : Harmful to aquatic organisms. Calculated LC50 (fish): 24 mg/l. Calculated EC50 (waterflea): 12 mg/l. Contains 5 % 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 : Contains bioaccumulating substances.

12.4. Mobility in soil

Mobility : Little chance of penetration of spilled product into the ground and surface water.

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
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphtyl)ethan-1-one	LC50 (fish)	1,3 mg/l	OECD 203	-----
	EC50 (waterflea)	1,38 mg/l	OECD 202	-----
	IC50 (algea)	> 2,6 mg/l	OECD 201	-----
	Log P(ow)	5,23		
	BCF	600		
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	LC50 (fish)	1,36 mg/l	OECD 204	Lepomis macrochirus
	EC50 (waterflea)	0,47 mg/l	-----	-----
	IC50 (algea)	> 0,85 mg/l	OECD 201	Pseudokirchnerella subcapitata
	Ultimate aerobic biodegradation (%)	2 %	OECD 301 B	
	NOEC (waterflea) - chronic	0,111 mg/l.d	OECD 202	Daphnia magna
	NOEC (fish)	0,068 mg/l.d	OECD 210	Pimephales promelas
	Log P(ow)	5,9		
	BCF	1584		
Reaction mass of: (E)-oxacyclohexadec-12-en-2-one; (E)-oxacyclohexadec-13-en-2-one	LC50 (fish)	2,0 mg/l	OECD 203	Oncorhynchus mykiss
	EC50 (waterflea)	0,48 mg/l	OECD 202	Daphnia magna
	NOEC (fish)	0,52 mg/l	OECD 203	Oncorhynchus mykiss
	Log P(ow)	5,02		
[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	LC50 (fish) - estimate	0,055 mg/l	-----	-----
	EC50 (waterflea) - estimate	> 0,01 mg/l		
	Log P(ow)	6,38		

SECTION 13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product residues : Do not dispose empty pack with waste produced by households. Containers should be recycled or re-used. Treat product residues and non-empty pack as hazardous waste.

Additional warning : None.

Waste water discharge : Avoid discharge of waste water arising from tank cleaning to the environment.

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. : None.

14.2. UN proper shipping name

Transport name : Not regulated.

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

ADR/RID/ADN (road/railway/inland waterways)
Class : This product is not classified according to ADR/RID/ADN.

IMDG (sea)
Class : This product is not classified according to IMDG.
Marine pollutant : No

IATA (air)
Class : This product is not classified according to IATA.

14.6. Special precautions for user

Other information : Country specific variations may apply.

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:

Skin Sens. 1/1A/1B	:	Calculation method.
Aquatic Chronic 3	:	Calculation method.

Full text of hazard classes mentioned in section 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.
STOT SE 3	:	Specific target organ toxicity after single exposure, category 3.
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:

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
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.