

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

1.1. Product identifier

Product name : ALEFIA SCENTED CANDLE WOODY & CITRUS
Product code : ALE-065

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

Human health hazards : May cause an allergic skin reaction.

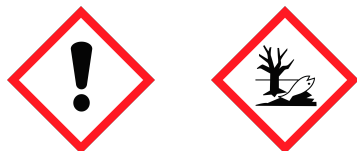
Physical/chemical hazards : Not classified as dangerous according to statutory EC-Directives.

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.
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 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.

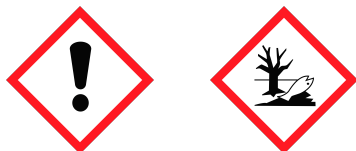
SAFETY DATA SHEET

According to Regulation (EU) No 2015/830

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: 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one ;
alpha-Hexylcinnamaldehyde ; Methyl 2,4-dihydroxy-3,6-dimethylbenzoate ; 1,3,4,6,7,8a-
Hexahydro-1,1,5,5-tetramethyl-2H-2,4a-methanonaphthalin-8(5H)-one ; [3R-(3α,3aβ,6α,7β,8aα)]-
Octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene ; Linalyl acetate ; 1,2,3,5,6,7-
Hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one ; Citronellol .
: Contains 5 % of components with unknown hazards to the aquatic environment.

2.3. Other hazards

Other information : Does not contain PBT or vPvB substances.

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-naphthyl)ethan-1-one	2,5 - < 5	54464-57-2	259-174-3		01-2119489989-04
Benzyl benzoate	1 - < 2,5	120-51-4	204-402-9		01-2119976371-33
alpha-Hexylcinnamaldehyde	0,1 - < 1	101-86-0	202-983-3		01-2119533092-50
Methyl 2,4-dihydroxy-3,6-dimethylbenzoate	0,1 - < 1	4707-47-5	225-193-0		01-2120762759-36
1,3,4,6,7,8a-Hexahydro-1,1,5,5-tetramethyl-2H-2,4a-methanonaphthalin-8(5H)-one	0,1 - < 1	23787-90-8	245-890-3		01-2120136162-69
[3R-(3α,3aβ,6α,7β,8aα)]-Octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	0,1 - < 0,25	67874-81-1	267-510-5		01-2120228335-61
Linalyl acetate	0,1 - < 1	115-95-7	204-116-4		01-2119454789-19

SAFETY DATA SHEET

According to Regulation (EU) No 2015/830

1,2,3,5,6,7-Hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one	0,1 - < 1	33704-61-9	251-649-3		01-2119977131-40
Citronellol	0,1 - < 1	106-22-9	203-375-0		01-2119453995-23

Substance name	Hazard Class	H-phrases	Pictograms	
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	Skin Irrit. 2; Skin Sens. 1B; Aquatic Chronic 1	H315; H317; H410	GHS07; GHS09	M (chronic) = 1
Benzyl benzoate	Acute Tox. 4; Aquatic Acute 1; Aquatic chronic 2	H302; H400; H411	GHS07; GHS09	M (acute) = 1
alpha-Hexylcinnamaldehyde	Skin Sens. 1B; Aquatic Acute 1; Aquatic Chronic 2	H317; H400; H411	GHS07; GHS09	M (acute) = 1
Methyl 2,4-dihydroxy-3,6-dimethylbenzoate	Skin Sens. 1B	H317	GHS07	
1,3,4,6,7,8a-Hexahydro-1,1,5,5-tetramethyl-2H-2,4a-methanonaphthalin-8(5H)-one	Skin Irrit. 2; Skin Sens. 1B; Aquatic Chronic 2	H315; H317; H411	GHS07; GHS09	
[3R-(3α,3aβ,6α,7β,8aα)]-Octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	Skin Sens. 1B; Aquatic Acute 1; Aquatic Chronic 1	H317; H400; H410	GHS07; GHS09	M (acute) = 1 M (chronic) = 1
Linalyl acetate	Skin Irrit. 2; Skin Sens. 1B; Eye Irrit. 2	H315; H317; H319	GHS07	
1,2,3,5,6,7-Hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one	Skin Irrit. 2; Skin Sens. 1B; Eye Irrit. 2; Aquatic Chronic 2	H315; H317; H319; H411	GHS07; GHS09	
Citronellol	Eye Irrit. 2; Skin Irrit. 2; Skin Sens. 1B	H319; H317; H315	GHS07	

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)

SAFETY DATA SHEET

According to Regulation (EU) No 2015/830

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.

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-naphthyl)ethan-1-one	Dermal	0,1011 mg/kg bw	102 mg/m3		1,73 mg/kg bw/day
Benzyl benzoate	Inhalation				1,76 mg/m3
	Dermal				2,6 mg/kg bw/day
alpha-Hexylcinnamaldehyde	Inhalation				5,1 mg/m3
	Dermal	0,525 mg/kg bw		0,525 mg/kg bw/day	18,2 mg/kg bw/day
Methyl 2,4-dihydroxy-3,6-dimethylbenzoate	Inhalation	6,28 mg/m3			0,078 mg/m3
	Dermal			2,5 mg/kg bw/day	
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
1,2,3,5,6,7-Hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one	Dermal			5,510 mg/kg bw/day	0,42 mg/kg bw/day
	Inhalation				1,47 mg/m3
Citronellol	Dermal				45,8 mg/kg bw/day
	Inhalation				161,6 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-naphthyl)ethan-1-one	Dermal	0,0506 mg/kg bw	25 mg/m3 78 mg/kg bw		0,86 mg/kg bw/day
Benzyl benzoate	Inhalation				0,43 mg/m3
	Oral				0,25 mg/kg bw/day
alpha-Hexylcinnamaldehyde	Dermal				1,3 mg/kg bw/day
	Inhalation				1,25 mg/m3
Methyl 2,4-dihydroxy-3,6-dimethylbenzoate	Oral				0,4 mg/kg bw/day
	Dermal	0,0787 mg/kg bw		0,0787 mg/kg bw/day	9,11 mg/kg bw/day
Linalyl acetate	Inhalation	4,71 mg/m3			0,019 mg/m3
	Oral				0,056 mg/kg bw/day
1,2,3,5,6,7-Hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one	Dermal			1,25 mg/kg bw/day	
	Inhalation				0,68 mg/m3
	Oral				0,2 mg/kg bw/day
	Dermal			3,241 mg/kg bw/day	0,25 mg/kg bw/day

SAFETY DATA SHEET

According to Regulation (EU) No 2015/830

Citronellol	Inhalation			0,44 mg/m ³
	Oral			0,25 mg/kg bw/day
	Dermal			27,5 mg/kg bw/day
	Inhalation			47,8 mg/m ³
	Oral			13,75 mg/kg bw/day

Predicted no-effect concentration (PNEC):

Chemical name	Route of exposure	Fresh water	Marine water	
Benzyl benzoate	Water	0,017 mg/l	0,002 mg/l	
	Sediment	10,66 mg/kg	1,07 mg/kg	
	STP			100 mg/l
	Soil			2,12 mg/kg
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
Methyl 2,4-dihydroxy-3,6-dimethylbenzoate	Oral			6,6 mg/kg food
	Water	0,0033 mg/l	0,00033 mg/l	
	Sediment	0,089 mg/kg	0,0089 mg/kg	
	STP			10 mg/l
Linalyl acetate	Soil			0,016 mg/kg
	Water	0,011 mg/l	0,001 mg/l	
	Sediment	0,609 mg/kg	0,061 mg/kg	
	Intermittent water			0,11 mg/l
1,2,3,5,6,7-Hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one	STP			10 mg/l
	Soil			0,115 mg/kg
	Water	0,004 mg/l	0 mg/l	
	Sediment	0,0991 mg/kg	0,00991 mg/kg	
	STP			10 mg/l
Citronellol	Soil			0,0174 mg/kg
	Oral			1,11 mg/kg food
	Water	0,0024 mg/l	0,00024 mg/l	
	Sediment	0,0256 mg/kg	0,00256 mg/kg	
	Intermittent water			0,024 mg/l
	STP			580 mg/l
	Soil			0,00371 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.

Hand protection : Wear appropriate safety gloves in accordance with EN 374. Suitable material: nitril. \pm 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	: > 225 °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)	: 0,8 g/ml	
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 : Not known.
products

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: > 3849 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: > 4447 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-naphthyl)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	-----
alpha-Hexylcinnamaldehyde	NOAEL (development, oral)	480 mg/kg bw/d	OECD 414	Rat
	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	

SAFETY DATA SHEET

According to Regulation (EU) No 2015/830

Methyl 2,4-dihydroxy-3,6-dimethylbenzoate	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
	LD50 (oral)	> 5000 mg/kg bw	OECD 401	Rat
1,3,4,6,7,8a-Hexahydro-1,1,5,5-tetramethyl-2H-2,4a-methanonaphthalin-8(5H)-one	LD50 (dermal)	> 5000 mg/kg bw	OECD 402	Rat
	Skin irritation	Irritant		
	LD50 (oral)	> 2000 mg/kg bw	OECD 420	Rat
[3R-(3α,3aβ,6α,7β,8α)]-Octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	LC50 (inhalation) - estimate	> 13000 mg/m3	Read across	
	LD50 (dermal)	> 5000 mg/kg bw	OECD 402	Rabbit
	LD50 (oral)	> 5000 mg/kg bw	OECD 401	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
1,2,3,5,6,7-Hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one	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
	Genotoxicity - in vitro	Not genotoxic	OECD 476	Mouse
	LD50 (oral)	> 2325 mg/kg bw	OECD 401	Rat
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Skin irritation	Irritant		Human
	Eye irritation	Irritant	-----	-----
	NOAEL (oral)	10 mg/kg bw/d	OECD 408	Rat
Citronellol	NOAEL (development, oral)	115 mg/kg bw/d	OECD 421	Rat
	NOAEL (fertility, oral)	115 mg/kg bw/d	OECD 421	Rat
	Genotoxicity - in vitro	Not genotoxic		
	Skin sensitisation	10875 ug/cm2	OECD 429	Mouse
	Mutagenicity	Not mutagenic	OECD 471	Salmonella typhimurium
	NOAEL (oral)	> 50 mg/kg bw/d		Rat
	Skin irritation	Moderately irritant		Rabbit
	LD50 (oral)	3450 mg/kg bw	-----	Rat
	LD50 (dermal)	2650 mg/kg bw		Rabbit

SAFETY DATA SHEET

According to Regulation (EU) No 2015/830

NOAEL (fertility, dermal)	300 mg/kg bw/d	OECD 421	Rat
NOAEL (developmental toxicity, dermal)	> 300 mg/kg bw/d	OECD 421	Rat
Skin irritation	Moderately irritant	Patch test	Human
Eye irritation	Moderately irritant		Rabbit

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): 20 mg/l. Calculated EC50 (waterflea): 23 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 : No specific information known.

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.

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-naphthyl)ethan-1-one	LC50 (fish)	1,3 mg/l	OECD 203	-----
	EC50 (waterflea)	1,38 mg/l	OECD 202	-----
	IC50 (algae)	> 2,6 mg/l	OECD 201	-----
	Log P(ow)	5,23		
	BCF	600		
Benzyl benzoate	LC50 (fish)	2,32 mg/l	OECD 203	Brachydanio rerio
	EC50 (waterflea)	3,09 mg/l	OECD 202	Daphnia magna
	IC50 (algae)	0,475 mg/l	OECD 201	Pseudokirchnerella subcapitata
	Ultimate aerobic biodegradation (%)	94 %	OECD 301 F	
	NOEC (waterflea) - chronic	0,258 mg/l.d	OECD 211	Daphnia magna
	LC0 (fish)	1,9 mg/l	OECD 203	Brachydanio rerio
	LC100 (fish)	2,84 mg/l	OECD 203	Brachydanio rerio
	Log P(ow)	3,97		
[3R-(3α,3aβ,6α,7β,8aα)]-Octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	BCF	24		
	LC50 (fish)	0,43 mg/l	OECD 203	Cyprinus carpio
	EC50 (waterflea)	0,48 mg/l	OECD 202	Daphnia magna

SAFETY DATA SHEET

According to Regulation (EU) No 2015/830

	IC50 (alga)	> 1,8 mg/l	OECD 201	Pseudokirchnerella subcapitata
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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 and non-empty pack as hazardous waste.
- Additional warning : None.
- 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 3077

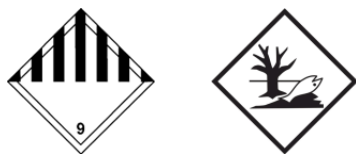
14.2. UN proper shipping name

- Transport name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one ; Benzyl benzoate)
- Transport name (IMDG, IATA) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one ; Benzyl benzoate)

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

ADR/RID/ADN (road/railway/inland waterways)

- Class : 9
- Classification code : M7
- Packaging group : III
- Danger label : 9 + the "environmentally hazardous substance" mark.
- Tunnel restriction code : D/E



- Other information : Not intended for carriage by tank-vessels on inland waterways. Packagings with a quantity of 5 l or less for liquids or 5 kg, or less for solids need not be marked with the environmentally hazardous substance mark.

IMDG (sea)

- Class : 9
- Packaging group : III
- EmS (fire / spill) : F - A / S - F
- Marine pollutant : Yes
- Other information : Packagings with a quantity of 5 l or less for liquids or 5 kg, or less for solids need not be marked with the environmentally hazardous substance mark.

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

SAFETY DATA SHEET

According to Regulation (EU) No 2015/830

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 2 : 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.
Aquatic Chronic 1 : Hazardous to the aquatic environment — Chronic category 1.
Aquatic Chronic 2 : Hazardous to the aquatic environment — Chronic category 2.
Aquatic Acute 1 : Hazardous to the aquatic environment — Acute category 1.

Full text of H-phrases mentioned in section 3:

H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye 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.

Advice on any training appropriate for workers: none.

Number format : "," used as decimal separator.

End of safety data sheet.