



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

1.1. Product identifier

Product name : LAFITA GOUTTE D'OR
Product code : DOV-011

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

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2.1. Classification of the substance or mixture

CLP classification : Skin irritation, category 2. Eye irritation, category 2. Skin sensitization, category 1. Hazardous to the aquatic environment — Acute category 1. Hazardous to the aquatic environment — Chronic category 1.

Human health hazards : Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction.

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

Environmental hazards : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Label elements (1272/2008/EC):

Hazard pictograms :



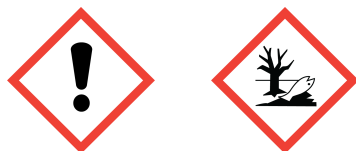
Signal word : Warning

H- and P-phrases	:	H315	Causes skin irritation.
		H319	Causes serious eye irritation.
		H317	May cause an allergic skin reaction.
		H410	Very 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 Wear protective gloves and eye protection.
 eyes
 P302+P352 IF ON SKIN: Wash with plenty of water/soap.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 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.
 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 ; d-Limonene ; Linalyl acetate ; Linalool ; Alpha-methyl-1,3-benzodioxole-5-propionaldehyde ; [3R-(3 α ,3 β ,6 α ,7 β ,8 α)]-Octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene ; (Ethoxymethoxy)cyclododecane ; 2-(4-tert-Butylbenzyl)propionaldehyde ; Coumarin ; 4-(4-Hydroxy-4-methylpentyl)cyclohex-3-enecarbaldehyde ; 3,7-Dimethyloctan-3-ol ; (-)-Pin-2(10)-ene ; 7-Methyl-3-methyleneocta-1,6-diene ; 2-(2,2,7,7-tetramethyltricyclo [6.2.1.0(1,6)] undec-5(4)-en-5-yl) propan-1-ol ; Pin-2(10)-ene ; Pin-2(3)-ene ; Geraniol ; Eugenol ; Cinnamaldehyde ; 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

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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	25 - < 50	54464-57-2	259-174-3		01-2119489989-04
d-Limonene	5 - < 10	5989-27-5	227-813-5		01-2119529223-47
2,6-Dimethyloct-7-en-2-ol	5 - < 10	18479-58-8	242-362-4		01-2119457274-37
Linalyl acetate	5 - < 10	115-95-7	204-116-4		01-2119454789-19
Linalool	5 - < 10	78-70-6	201-134-4		01-2119474016-42
3-Methyl-4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-3-buten-2-one	1 - < 5	127-51-5	204-846-3		01-2120138569-45
Alpha-methyl-1,3-benzodioxole-5-propionaldehyde	1 - < 2,5	1205-17-0	214-881-6		01-2120740119-58



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[3R-(3 α ,3 β ,6 α ,7 β ,8 α)]-Octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	1 - < 5	67874-81-1	267-510-5		01-2120228335-61
Cis-2-tert-butylcyclohexyl acetate	1 - < 5	20298-69-5	243-718-1		01-2119970713-33
Alpha,alpha-dimethylphenylethyl butyrate	1 - < 5	10094-34-5	233-221-8		01-2120742578-44
(Ethoxymethoxy)cyclododecane	1 - < 5	58567-11-6	261-332-1		01-2119971571-34
2-(4-tert-Butylbenzyl)propionaldehyde	1 - < 3	80-54-6	201-289-8		01-2119485965-18
Coumarin	1 - < 5	91-64-5	202-086-7		01-2119949300-45
4-(4-Hydroxy-4-methylpentyl)cyclohex-3-enecarbaldehyde	1 - < 5	31906-04-4	250-863-4		
3,7-Dimethyloctan-3-ol	0,1 - < 1	78-69-3	201-133-9		01-2119454788-21
Reaction mass of 1-methyl-3-(4-methyl-3-pentenyl)cyclohex-3-ene-1-carbaldehyde and 1-methyl-4-(4-methyl-3-pentenyl)cyclohex-3-ene-1-carbaldehyde	0,1 - < 1	-----	915-712-5		01-2120735080-68
(-)-Pin-2(10)-ene	0,1 - < 1	18172-67-3	242-060-2		01-2119519230-54
7-Methyl-3-methylenoocta-1,6-diene	0,1 - < 1	123-35-3	204-622-5		01-2119514321-56
(Z)-3-hexenyl salicylate	0,1 - < 1	65405-77-8	265-745-8		01-2119987320-37
Allyl (cyclohexyloxy)acetate	0,1 - < 1	68901-15-5	272-657-3		01-2120770514-54
[3R-(3 α ,3 β ,7 β ,8 α)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	0,1 - < 1	469-61-4	207-418-4		
2-(2,2,7,7-tetramethyltricyclo[6.2.1.0(1,6)] undec-5(4)-en-5-yl)propan-1-ol	0,1 - < 1	929625-08-1	695-374-0		
Pin-2(10)-ene	0,1 - < 0,25	127-91-3	204-872-5		
Pin-2(3)-ene	0,1 - < 0,25	80-56-8	201-291-9		01-2119519223-49
Geraniol	0,1 - < 1	106-24-1	203-377-1		01-2119552430-49
Eugenol	0,1 - < 1	97-53-0	202-589-1		01-2119971802-33
Cinnamaldehyde	0,01 - < 0,1	104-55-2	203-213-9		01-2119935242-45
Isoeugenol	0,01 - < 0,1	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-naphthyl)ethan-1-one	Skin Irrit. 2; Skin Sens. 1B; Aquatic Chronic 1	H315; H317; H410	GHS07; GHS09	M (chronic) = 1
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
2,6-Dimethyloct-7-en-2-ol	Skin Irrit. 2; Eye Irrit. 2	H315; H319	GHS07	
Linalyl acetate	Skin Irrit. 2; Skin Sens. 1B; Eye Irrit. 2	H315; H317; H319	GHS07	
Linalool	Skin Irrit. 2; Eye Irrit. 2; Skin Sens. 1B	H315; H317; H319	GHS07	
3-Methyl-4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-3-buten-2-one	Aquatic Chronic 2	H411	GHS09	
Alpha-methyl-1,3-benzodioxole-5-propionaldehyde	Skin Sens. 1B; Repr. 2; Aquatic Chronic 2	H317; H361fd; H411	GHS07; GHS08; GHS09	
[3R-(3 α ,3 β ,6 α ,7 β ,8 α)]-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



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Cis-2-tert-butylcyclohexyl acetate	Aquatic Chronic 2	H411	GHS09	
Alpha,alpha-dimethylphenylethyl butyrate	Skin Irrit. 2; Aquatic Chronic 3	H315; H412	GHS07	
(Ethoxymethoxy)cyclododecane	Skin Irrit. 2; Skin Sens. 1B; Aquatic Chronic 2	H315; H317; H411	GHS07; GHS09	
2-(4-tert-Butylbenzyl)propionaldehyde	Aquatic Chronic 3; Skin Irrit. 2; Skin Sens. 1B; Acute Tox. 4; Repr. 2	H302; H315; H317; H412; H361f	GHS07; GHS08; GHS09	
Coumarin	Acute Tox. 4; Skin Sens. 1B; Aquatic Chronic 3	H302; H317; H412	GHS07	
4-(4-Hydroxy-4-methylpentyl)cyclohex-3-enecarbaldehyde	Skin Sens. 1A	H317	GHS07	
3,7-Dimethyloctan-3-ol	Skin Irrit. 2; Skin Sens. 1B; Eye Irrit. 2	H315; H317; H319	GHS07	
Reaction mass of 1-methyl-3-(4-methyl-3-pentenyl)cyclohex-3-ene-1-carbaldehyde and 1-methyl-4-(4-methyl-3-pentenyl)cyclohex-3-ene-1-carbaldehyde	Aquatic Acute 1; Aquatic Chronic 1	H400; H410	GHS09	M (acute) = 1 M (chronic) = 1
(-)-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
7-Methyl-3-methyleneocta-1,6-diene	Flam. Liq. 3; Skin Irrit. 2; Eye Irrit. 2; Skin Sens. 1B; Asp. Tox. 1; Aquatic Acute 1; Aquatic Chronic 1	H226; H304; H315; H317; H319; H400; H410	GHS02; GHS07; GHS08; GHS09	
(Z)-3-hexenyl salicylate	Aquatic Acute 1; Aquatic Chronic 1	H400; H410	GHS09	M (acute) = 1 M (chronic) = 1
Allyl (cyclohexyloxy)acetate	Acute Tox. 4; Aquatic Acute 1; Aquatic Chronic 1	H302; H400; H410	GHS07	M (acute) = 1 M (chronic) = 1
[3R-(3 α ,3 α β ,7 β ,8 α)]-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
2-(2,2,7,7-tetramethyltricyclo[6.2.1.0(1,6)] undec-5(4)-en-5-yl)propan-1-ol	Skin Irrit. 2; Skin Sens. 1B; Aquatic Acute 1; Aquatic Chronic 1	H315; H317; H400; H410	GHS07; GHS09	
Pin-2(10)-ene	Flam. Liq. 3; Skin Sens. 1B; Asp. Tox. 1; Skin Irrit. 2; Aquatic Acute 1; Aquatic Chronic 1	H226; H317; H304; H315; H400; H410	GHS02; GHS07; GHS08; GHS09	M (acute) = 1 M (chronic) = 1
Pin-2(3)-ene	Flam. Liq. 3; Acute Tox. 4; Skin Irrit. 2; Skin Sens. 1B; Asp. Tox. 1; Aquatic Acute 1; Aquatic Chronic 1	H226; H302; H315; H317; H304; H400; H410	GHS02; GHS07; GHS08; GHS09	M (acute) = 1 M (chronic) = 1
Geraniol	Skin Sens. 1B; Eye Dam. 1; Skin Irrit. 2	H317; H318; H315	GHS05; GHS07	
Eugenol	Eye Irrit. 2; Skin Sens. 1B	H319; H317	GHS07	



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Cinnamaldehyde	Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; Skin Sens. 1A	H312; 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 : Irritant. 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 (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. 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

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7.1. Precautions for safe handling

Handling : Handle in accordance with good occupational hygiene and safety practices in well-ventilated areas. Keep away from sources of ignition — No smoking. 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 : PE and PP.

7.3. Specific end use(s)

Use : Use only as directed.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

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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/m ³)	STEL 15 min (mg/m ³)	Comments	Source
d-Limonene		28	80		MAC: DE, CH
Pin-2(3)-ene		113	-		MAC: BE

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



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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			1,73 mg/kg bw/day
d-Limonene	Inhalation				1,76 mg/m3
2,6-Dimethyloct-7-en-2-ol	Inhalation				33,3 mg/m3
	Dermal				20,8 mg/kg bw/day
Linalyl acetate	Inhalation				73,5 mg/m3
	Dermal	0,2362 mg/kg bw		0,2362 mg/kg bw/day	2,5 mg/kg bw/day
Linalool	Inhalation				2,75 mg/m3
	Dermal		5 mg/kg bw		2,5 mg/kg bw/day
	Inhalation		16,5 mg/m3		2,8 mg/m3
Alpha-methyl-1,3-benzodioxole-5-propionaldehyde	Dermal			0,01 mg/kg bw/day	0,17 mg/kg bw/day
	Inhalation				1,2 mg/m3
Alpha,alpha-dimethylphenylethyl butyrate	Dermal				8,33 mg/kg bw/day
	Inhalation				4,4 mg/m3
(Ethoxymethoxy)cyclododecane	Dermal				3,3 mg/kg bw/day
	Inhalation				23,5 mg/m3
2-(4-tert-Butylbenzyl)propionaldehyde	Dermal	0,410 mg/kg bw		0,410 mg/kg bw/day	1,79 mg/kg bw/day
	Inhalation			0,44 mg/m3	
Coumarin	Dermal				0,79 mg/kg bw/day
	Inhalation				6,78 mg/m3
3,7-Dimethyloctan-3-ol	Dermal				2,5 mg/kg bw/day
	Inhalation				2,75 mg/m3
(-)-Pin-2(10)-ene	Dermal				0,8 mg/kg bw/day
	Inhalation				5,69 mg/m3
7-Methyl-3-methyleneocta-1,6-diene	Dermal		0,83 mg/kg bw		
	Inhalation				5,85 mg/m3
(Z)-3-hexenyl salicylate	Dermal				0,9 mg/kg bw/day
	Inhalation				1,59 mg/m3
Allyl (cyclohexyloxy)acetate	Dermal				0,448 mg/kg bw/day
	Inhalation				3,16 mg/m3
Pin-2(10)-ene	Dermal			0,054 mg/kg bw/day	0,8 mg/kg bw/day
	Inhalation				5,69 mg/m3
Pin-2(3)-ene	Dermal				0,54 mg/kg bw/day
	Inhalation				3,8 mg/m3
Geraniol	Dermal				12,5 mg/kg bw/day
	Inhalation				161,6 mg/m3
Eugenol	Dermal				6 mg/kg bw/day
	Inhalation				21,2 mg/m3
Cinnamaldehyde	Dermal				2,5125 mg/kg bw/day
	Inhalation				2,203 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			0,86 mg/kg bw/day
	Inhalation				0,43 mg/m3
d-Limonene	Oral				0,25 mg/kg bw/day
	Inhalation				8,33 mg/m3
	Oral				4,76 mg/kg bw/day



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2,6-Dimethyloct-7-en-2-ol	Dermal				12,5 mg/kg bw/day
	Inhalation				21,7 mg/m3
	Oral				12,5 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
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
Alpha-methyl-1,3-benzodioxole-5-propionaldehyde	Dermal			0,005 mg/kg bw/day	0,083 mg/kg bw/day
	Inhalation				0,29 mg/m3
	Oral				0,17 mg/kg bw/day
Alpha, alpha-dimethylphenylethyl butyrate	Dermal				4,17 mg/kg bw/day
	Inhalation				2,2 mg/m3
	Oral				4,17 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
2-(4-tert-Butylbenzyl)propionaldehyde	Dermal	0,410 mg/kg bw		0,410 mg/kg bw/day	0,89 mg/kg bw/day
	Inhalation				0,11 mg/m3
	Oral				0,062 mg/kg bw/day
Coumarin	Dermal				0,39 mg/kg bw/day
	Inhalation				1,69 mg/m3
	Oral				0,39 mg/kg bw/day
3,7-Dimethyloctan-3-ol	Dermal				1,25 mg/kg bw/day
	Inhalation				0,68 mg/m3
	Oral				0,2 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
7-Methyl-3-methyleneocta-1,6-diene	Dermal				0,42 mg/kg bw/day
	Inhalation				1,25 mg/m3
	Oral				0,42 mg/kg bw/day
(Z)-3-hexenyl salicylate	Dermal				0,45 mg/kg bw/day
	Inhalation				0,39 mg/m3
	Oral				0,23 mg/kg bw/day
Allyl (cyclohexyloxy)acetate	Dermal				0,16 mg/kg bw/day
	Inhalation				0,557 mg/m3
	Oral				0,16 mg/kg bw/day
Pin-2(10)-ene	Dermal			0,027 mg/kg bw/day	0,3 mg/kg bw/day
	Inhalation				1 mg/m3
	Oral				0,3 mg/kg bw/day
Pin-2(3)-ene	Dermal				0,19 mg/kg bw/day
	Inhalation				0,67 mg/m3
	Oral				0,19 mg/kg bw/day
Geraniol	Dermal				7,5 mg/kg bw/day
	Inhalation				47,8 mg/m3
	Oral				13,75 mg/kg bw/day
Eugenol	Dermal				3 mg/kg bw/day
	Inhalation				5,22 mg/m3
	Oral				3 mg/kg bw/day



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Cinnamaldehyde	Dermal Inhalation Oral				0,625 mg/kg bw/day 0,5435 mg/m3 2,5 mg/kg bw/day
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Predicted no-effect concentration (PNEC):

Chemical name	Route of exposure	Fresh water	Marine water	
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
2,6-Dimethyloct-7-en-2-ol	Water	0,0278 mg/l	0,0027 mg/l	
	Sediment	0,594 mg/kg	0,0594 mg/kg	
	Intermittent water			0,278 mg/l
	STP			10 mg/l
	Soil			0,103 mg/kg
	Oral			111 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
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
Alpha-methyl-1,3-benzodioxole-5-propionaldehyde	Water	0,005 mg/l	0,001 mg/l	
	Sediment	0,057 mg/kg	0,006 mg/kg	
	STP			10 mg/l
	Soil			0,008 mg/kg
Cis-2-tert-butylcyclohexyl acetate	Water	0,011 mg/l	0,0011 mg/l	
	Sediment	1,5 mg/kg	0,15 mg/kg	
	Intermittent water			0,017 mg/l
	STP			10 mg/l
	Soil			0,293 mg/kg
Alpha, alpha-dimethylphenylethyl butyrate	Water	0,004766 mg/l		
	Sediment	0,189 mg/kg		
	STP			31,25 mg/l
	Soil			0,103 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
2-(4-tert-Butylbenzyl)propionaldehyde	Water	0,004 mg/l	0 mg/l	
	Sediment	0,528 mg/kg	0,053 mg/kg	
	Intermittent water			0,0204 mg/l
	STP			10 mg/l
	Soil			0,103 mg/kg
Coumarin	Water	0,019 mg/l	0,0019 mg/l	
	Sediment	0,15 mg/kg	0,015 mg/kg	



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3,7-Dimethyloctan-3-ol	Intermittent water			0,0142 mg/l
	STP			6,4 mg/l
	Soil			0,018 mg/kg
	Oral			30,7 mg/kg food
	Water	0,0089 mg/l	0,00089 mg/l	
(-)-Pin-2(10)-ene	Sediment	0,0821 mg/kg	0,00821 mg/kg	
	Intermittent water			0,089 mg/l
	STP			450 mg/l
	Soil			0,0112 mg/kg
	Water	0,001 mg/l	0,0001 mg/l	
7-Methyl-3-methylenoocta-1,6-diene	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
	Water	0,008 mg/l	0,0008 mg/l	
(Z)-3-hexenyl salicylate	Sediment	5,022 mg/kg	0,502 mg/kg	
	STP			0,2 mg/l
	Soil			1,015 mg/kg
	Oral			2,78 mg/kg food
	Water	0,00061 mg/l	0,000061 mg/l	
Allyl (cyclohexyloxy)acetate	Sediment	0,11 mg/kg	0,011 mg/kg	
	Intermittent water			0,0061 mg/l
	STP			10 mg/l
	Soil			0,0217 mg/kg
	Oral			40 mg/kg food
Pin-2(10)-ene	Water	0,00205 mg/l	0,000205 mg/l	
	Sediment	0,0387 mg/kg	0,00387 mg/kg	
	STP			0,3 mg/l
	Soil			0,375 mg/kg
	Water	0,001004 mg/l	0,0001 mg/l	
Pin-2(3)-ene	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
	Water	0,0006 mg/l	0,00006 mg/l	
Geraniol	Sediment	0,157 mg/kg	0,0157 mg/kg	
	STP			0,2 mg/l
	Soil			0,0317 mg/kg
	Oral			8,76 mg/kg food
	Water	0,0108 mg/l	0,0010 mg/l	
Cinnamaldehyde	Sediment	0,115 mg/kg	0,0115 mg/kg	
	Intermittent water			0,108 mg/l
	STP			0,7 mg/l
	Soil			0,0167 mg/kg
	Water	1,004 mg/l	0,1004 mg/l	
	Sediment	159,1851 mg/kg	159,1851 mg/kg	
	Intermittent water			1,004 mg/l
	STP			13,119 mg/l
	Soil			56,0847 mg/kg
	Oral			0,00033 mg/kg food

8.2. Exposure controls

- Engineering measures : Comply with standard precautionary measures for working with chemicals. See Directive 2004/37/EG on the protection of workers from the risks related to exposure to carcinogens or mutagens at work.
- 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. 0,13 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

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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 known.	Not measured. Not relevant for mixtures.
Flash point	: 98 °C	
Flammability (solid, gas)	: Not applicable.	Liquid. See flashpoint.
Auto ignition temperature	: > 220 °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 (%): 0,5 (2-(4-tert-Butylbenzyl)propionaldehyde)
		Upper explosion limit in air (%): 6,5 (d-Limonene)
Oxidising properties	: Not applicable.	Does not contain oxidizing substances.
Decomposition temperature	: Not applicable.	
Viscosity (20°C)	: Not known.	
Viscosity (40°C)	: < 20,5 mm ² /sec	
Vapour pressure (20°C)	: Not known.	
Vapour density (20°C)	: > 1	(air = 1)
Relative density (20°C)	: Not known.	
Evaporation rate	: Not known.	(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

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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: 84 %. 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 : Does not contain carcinogenic substances. 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.

Skin contact

- Acute toxicity : Calculated LD50: > 4754 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 : Irritant. May cause redness. Prolonged contact may dry out and defat the skin.
- 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 : Irritant.

Ingestion

- Acute toxicity : Calculated LD50: > 3715 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 : Does not contain carcinogenic substances. Not classified - based on available data, the classification criteria are not met.



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Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

Reprotoxicity : Development: Not classified - Based on available data, the classification criteria are not met.

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	-----
	NOAEL (development, oral)	480 mg/kg bw/d	OECD 414	Rat
	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
d-Limonene	NOEL (carcinogenicity, oral)	> 300 mg/kg bw/d	OECD 451	Rat
	Genotoxicity - in vivo	> 2000 mg/kg bw/d		Rat
	NOAEL (development) - estimate	1000 mg/kg.d	Read across	Rat
	Mutagenicity	Not mutagenic	OECD 471	
	Genotoxicity - in vitro	Not genotoxic	OECD 476	
	NOAEL (oral) - estimate	500 mg/kg bw/d	Read across	Rat
	LD50 (oral)	3600 mg/kg bw	-----	Rat
	Skin sensitisation	Not sensitizing		
	Skin irritation	Slightly irritant	-----	Rabbit
	Eye irritation	Moderately irritant	OECD 405	Rabbit
2,6-Dimethyloct-7-en-2-ol	LD50 (dermal)	> 5000 mg/kg bw	-----	Rabbit
	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
Linalyl acetate	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



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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
Alpha-methyl-1,3-benzodioxole-5-propionaldehyde	NOAEL (fertility, oral)	100 mg/kg bw/d	OECD 422	Rat
	Skin irritation	Non-irritant		
	LD50 (dermal)	> 2000 mg/kg bw	----	Rabbit
	LD50 (oral)	3600 mg/kg bw	----	Rat
	Skin irritation	Non-irritant		
	NOAEL (development, oral)	> 500 mg/kg bw/d		Rat
	NOAEL (dermal)	> 300 mg/kg bw/d	----	Rat
	Skin sensitisation	4100 ug/cm2	OECD 429	----
[3R-(3 α ,3 α β ,6 α ,7 β ,8 α)]-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
Alpha,alpha-dimethylphenylethyl butyrate	Skin irritation	Moderately irritant	OECD 404	Rabbit
	LD50 (dermal)	> 5000 mg/kg bw		Rabbit
	LD50 (oral)	> 5000 mg/kg bw		Rat
	NOAEL (oral)	500 mg/kg bw/d	OECD 422	Rat
(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
2-(4-tert-Butylbenzyl)propionaldehyde	NOAEL (development, oral)	4 mg/kg bw/d	OECD 414	Rat
	NOAEL (fertility, oral)	25 mg/kg bw/d		Rat
	Genotoxicity - in vivo	Negative	OECD 474	Mouse
	NOAEL (oral)	25 mg/kg bw/d	----	Rat
	Eye irritation	Non-irritant	----	Rabbit
	Skin irritation	Irritant	OECD 404	Rabbit
	LD50 (dermal)	> 5000 mg/kg bw	----	Rabbit
	LD50 (oral)	1390 mg/kg bw	----	Rat
	Skin sensitisation	2372 ug/cm2	OECD 429	Mouse
	Mutagenicity	Negative	OECD 471	----
Coumarin	Skin sensitisation	> 12500 ug/cm2	OECD 429	Mouse

4-(4-Hydroxy-4-methylpentyl)cyclohex-3-enecarbaldehyde	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		
	Skin sensitisation	4275 ug/cm2	OECD 429	Mouse
3,7-Dimethyloctan-3-ol	Eye irritation	Mildly irritant	-----	Rabbit
	LD50 (dermal)	> 5000 mg/kg bw	-----	Rabbit
	LD50 (oral)	> 5000 mg/kg bw	-----	Rat
	Skin irritation	Non-irritant	Patch test	Human
	Skin irritation	Irritant	-----	Rabbit
	NOAEL (fertility, oral)	25 mg/kg bw/d		Rat
	Genotoxicity - in vivo	Not genotoxic		Mouse
	LC50 (inhalation) - estimate	> 5000 mg/m3		Rat
	Eye irritation	Non-irritant		Rabbit
	Skin irritation	Irritant		Rabbit
(-)-Pin-2(10)-ene	NOAEL (development, oral)	1000 mg/kg bw/d	OECD 414	Rat
	NOAEL (fertility) - estimate	365 mg/kg.d	Read across	Rat
	NOAEL (dermal) - estimate	250 mg/kg bw/d	Read across	Rat
	NOAEL (oral) - estimate	200 mg/kg bw/d	Read across	Rat
	Genotoxicity - in vitro	Not genotoxic	OECD 473	
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	LD50 (dermal)	> 5000 mg/kg bw		Rabbit
	LD50 (oral)	8270 mg/kg bw		Rat
	Skin sensitisation	Sensitizing.	OECD 429	Mouse
	LD50 (oral) - estimate	> 2000 mg/kg bw	Read across	Rat
7-Methyl-3-methyleneocta-1,6-diene	LD50 (dermal) - estimate	> 5000 mg/kg bw	Read across	Rabbit
	Mutagenicity - estimate	Not mutagenic	Read across	Salmonella typhimurium
	LD50 (dermal)	> 5000 mg/kg bw		Rabbit
	LD50 (oral)	> 11900 mg/kg bw	-----	Rat
	NOAEL (fertility, oral)	500 mg/kg bw/d	OECD 415	Rat
	Genotoxicity - in vivo	Negative	OECD 474	Mouse
	Genotoxicity - in vitro	Not genotoxic	OECD 473	
	NOEL (carcinogenicity, oral)	500 mg/kg bw/d	OECD 451	Mouse
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	NOAEL (oral)	500 mg/kg bw/d	-----	Rat
	Skin sensitisation	Not sensitizing	OECD 429	Mouse
	NOAEL (development, oral)	500 mg/kg bw/d	OECD 414	Rat
	Eye irritation	Irritant	-----	-----
	Skin irritation	Irritant	-----	-----



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2-(2,2,7,7-tetramethyltricyclo [6.2.1.0(1,6)] undec-5(4)-en-5-yl) propan-1-ol	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Genotoxicity - in vitro	Not genotoxic	OECD 473	-----
	LD50 (oral)	> 2000 mg/kg bw	OECD 423	Rat
	LD50 (dermal)	> 2000 mg/kg bw	OECD 402	Rat
	Skin irritation	Irritant	OECD 404	Rabbit
	Eye irritation	Slightly irritant	OECD 405	Rabbit
	NOAEL (oral)	1000 mg/kg bw/d	OECD 407	Rat
	Eye irritation	Moderately irritant	OECD 405	Rabbit
	NOAEL (development) - estimate	250 mg/kg.d	Read across	
	Skin sensitisation	Sensitizing.	OECD 429	Mouse
Pin-2(10)-ene	LD50 (dermal)	> 5000 mg/kg bw		Rabbit
	LD50 (oral)	> 5000 mg/kg bw		Rat
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Skin irritation	Irritant	-----	-----
	Skin sensitisation	Sensitizing.	-----	Guinea pig
	Skin irritation	Non-irritant	-----	Human
	Skin irritation	Moderately irritant	-----	Rabbit
	Mutagenicity	Not mutagenic	-----	Salmonella typhimurium
	Eye irritation - estimate	Moderately irritant	Read across	Rabbit
	Genotoxicity - estimate	Not genotoxic	Read across	
Pin-2(3)-ene	NOAEL (development) - estimate	250 mg/kg.d	Read across	Rat
	NOAEL (inhalation)	170 mg/m3	OECD 413	Rat
	NOAEL (oral) - estimate	250 mg/kg bw/d	Read across	
	LD50 (oral)	> 300 mg/kg bw	-----	Rat
	LD50 (dermal)	> 2000 mg/kg bw	OECD 402	Rat
	NOEL (oral)	> 550 mg/kg bw/d		Rat
	LD50 (dermal)	> 5000 mg/kg bw	-----	Rabbit
	LD50 (oral)	> 2840 mg/kg bw	-----	Rat
	NOEL (carcinogenicity) - estimate	Not carcinogenic	Read across	
	NOAEL (dermal)	300 mg/kg bw/d	OECD 421	Rat
Geraniol	Genotoxicity - in vitro	Not genotoxic	OECD 476	Chinese Hamster
	Genotoxicity - in vivo	Not genotoxic	OECD 474	Mouse
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	NOAEL (developmental toxicity, dermal)	> 300 mg/kg bw/d	OECD 421	Rat
	NOAEL (fertility, dermal)	> 300 mg/kg bw/d	OECD 421	Rat
	Skin sensitisation	3525 ug/cm2	OECD 429	Mouse
	LD50 (oral)	> 2000 mg/kg bw	OECD 423	Rat
	LC50 (inhalation)	> 2580 mg/m3	OECD 403	Rat
	LC50 (inhalation) - estimate	> 5000 mg/m3		Rat
	LD50 (dermal)	> 2000 mg/kg bw		Rat
Eugenol	NOEL (carcinogenicity, oral)	300 mg/kg bw/d	-----	Rat
	Skin sensitisation	2703 ug/cm2	OECD 429	Mouse
	NOAEL (oral)	600 mg/kg bw/d	OECD 408	Rat
	Genotoxicity - in vitro	Genotoxic	OECD 476	Mouse
	Genotoxicity - estimate	Not genotoxic		
	Genotoxicity - in vivo	Genotoxic	OECD 474	Mouse

Cinnamaldehyde	Mutagenicity	Not mutagenic	OECD 471	Salmonella typhimurium
	NOAEL (fertility) - estimate	> 700 mg/kg.d	Read across	Rat
	NOAEL (development, oral)	250 mg/kg bw/d		Rabbit
	Skin irritation	Severely irritant		
	NOAEL (development, oral)	5 mg/kg bw/d	----	Rat
	LD50 (oral)	2220 mg/kg bw	----	Rat
	LD50 (dermal)	1260 mg/kg bw	----	Rabbit
	Mutagenicity	Not mutagenic	----	Salmonella typhimurium
	NOAEL (oral) - estimate	250 mg/kg bw/d		
	Genotoxicity - in vitro	Genotoxic	----	
Isoeugenol	Genotoxicity - in vivo	Not genotoxic	----	
	Eye irritation	Moderately irritant	----	Rabbit
	NOEL (carcinogenicity) - estimate	Not carcinogenic		
	Skin sensitisation	262 ug/cm2	OECD 429	Mouse
	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

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12.1. Toxicity

No ecotoxicological research has been carried out on this product.

Ecotoxicity : Very toxic to aquatic organisms. Calculated LC50 (fish): 1 mg/l. Calculated EC50 (waterflea): < 1 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 : Contains bioaccumulating substances.

12.4. Mobility in soil

Mobility : Adsorbs to soil and has low mobility. Floats on 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.



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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 (alga)	> 2,6 mg/l	OECD 201	-----
	Log P(ow)	5,23		
	BCF	600		
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		
[3R-(3 α ,3 α β ,6 α ,7 β ,8 α)]-Octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	LC50 (fish)	0,43 mg/l	OECD 203	Cyprinus carpio
	EC50 (waterflea)	0,48 mg/l	OECD 202	Daphnia magna
	IC50 (alga)	> 1,8 mg/l	OECD 201	Pseudokirchnerella subcapitata
Reaction mass of 1-methyl-3-(4-methyl-3-pentenyl)cyclohex-3-ene-1-carbaldehyde and 1-methyl-4-(4-methyl-3-pentenyl)cyclohex-3-ene-1-carbaldehyde	EC50 (waterflea)	0,15 mg/l	OECD 202	Daphnia magna
	IC50 (alga)	1,8 mg/l	OECD 201	Pseudokirchnerella subcapitata
	Ultimate aerobic biodegradation (%)	41 %	OECD 301 F	
(-)-Pin-2(10)-ene	LC50 (fish) - estimate	> 0,1 mg/l		
	EC50 (waterflea) - estimate	> 0,1 mg/l		
	Log P(ow)	4,35		
7-Methyl-3-methylenoocta-1,6-diene	EC50 (waterflea)	1,47 mg/l	OECD 202	Daphnia magna
	IC50 (alga)	0,342 mg/l	OECD 201	Pseudokirchnerella subcapitata
	Ultimate aerobic biodegradation (%)	76 %	OECD 301 D	
	LC50 (fish) - estimate	> 100 mg/l	OECD 203	Cyprinus carpio
	Log P(ow)	5,285		
(Z)-3-hexenyl salicylate	BCF	739		
	EC50 (waterflea)	3,7 mg/l	OECD 202	Daphnia magna
	IC50 (alga)	0,61 mg/l	OECD 201	Desmodesmus subspicatus
Allyl (cyclohexyloxy)acetate	Ultimate aerobic biodegradation (%)	89 %	OECD 301 F	
	LC50 (fish) - estimate	1,13 mg/l		Brachydanio rerio
	Log P(ow)	4,57		
	LC50 (fish)	0,205 mg/l	OECD 203	Brachydanio rerio
	EC50 (waterflea)	11,3 mg/l	OECD 202	Daphnia magna
	IC50 (alga)	69,2 mg/l	OECD 201	Pseudokirchnerella subcapitata
	Ultimate aerobic biodegradation (%)	24 %	OECD 301 D	



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[3R-(3 α ,3 α β ,7 β ,8 α)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	NOEC (waterflea) - chronic	3,2 mg/l.d	OECD 202	Daphnia magna
	Log P(ow)	2,64		
	LC50 (fish) - estimate	0,055 mg/l	-----	-----
	EC50 (waterflea) - estimate	> 0,01 mg/l		
2-(2,2,7,7-tetramethyltricyclo[6.2.1.0(1,6)] undec-5(4)-en-5-yl)propan-1-ol	Log P(ow)	6,38	OECD 203	Cyprinus carpio
	LC50 (fish)	0,3 mg/l		
	EC50 (waterflea)	> 0,26 mg/l	OECD 202	Daphnia magna
	IC50 (alga)	> 0,14 mg/l	OECD 201	Pseudokirchnerella subcapitata
Pin-2(10)-ene	IC50 (alga) - estimate	> 100 mg/l	OECD 301 F	
	Ultimate aerobic biodegradation (%)	90 %		
	EC50 (waterflea) - estimate	> 100 mg/l		Daphnia magna
	Log P(ow)	6,2		
Pin-2(3)-ene	BCF	57,4	OECD 203	Pimephales promelas
	LC50 (fish)	0,502 mg/l	OECD 202	Daphnia magna
	EC50 (waterflea)	1,25 mg/l	OECD 201	Pseudokirchnerella subcapitata
	IC50 (alga)	0,826 mg/l		
Pin-2(3)-ene	Ultimate aerobic biodegradation (%)	76 %	OECD 301 D	
	Log P(ow)	4,4		
	LC50 (fish)	0,28 mg/l	-----	Pimephales promelas
	EC50 (waterflea)	1,44 mg/l	-----	Daphnia magna
Pin-2(3)-ene	Ultimate aerobic biodegradation (%)	62 %	OECD 301 B	
	Log P(ow)	4,32		

SECTION 13 DISPOSAL CONSIDERATIONS

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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

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14.1. UN number

UN nr. : UN 3082

14.2. UN proper shipping name

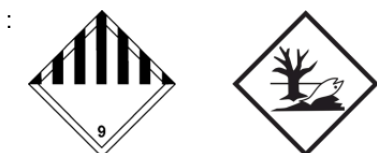
Transport name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one ; d-Limonene)

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

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 : 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

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

Full text of hazard classes mentioned in section 3:

Flam. Liq. 3	: Flammable liquid, category 3.
Acute Tox. 4	: Acute toxicity, category 4.
Skin Irrit. 2	: Skin irritation, category 2.
Eye Dam. 1	: Serious eye damage, category 1.



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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:

H226	Flammable liquid and vapour.
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.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H361	Suspected of damaging fertility or the unborn child.
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.