



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

1.1. Product identifier

Product name : ALEFIA PARFUMCARD WOODY & FLORAL
Product code : ALE-021

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

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

1.3. Details of the supplier of the safety data sheet

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

1.4. Emergency telephone number

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

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

SECTION 2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP classification (1272/2008/EC) : Skin irritation, category 2. Eye irritation, category 2. Skin sensitization, 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.
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 :

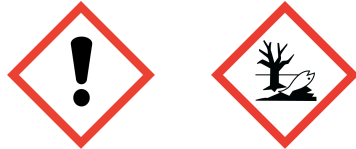


Signal word : Warning

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

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



Signal word : Warning

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

Additional labelling (for all packaging sizes)

- : Contains: 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 ; (Ethoxymethoxy)cyclododecane ; Piperonal ; 1,2,3,5,6,7-Hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one ; Methyl 2,4-dihydroxy-3,6-dimethylbenzoate ; 3,7-Dimethyloctan-3-ol ; Coumarin ; Citronellol ; d-Limonene ; Isoeugenol ; (E)-1-(2,6,6-trimethyl-1,3-cyclohexadien-1-yl)-2-buten-1-one .

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 | 10 - < 25 | 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 | 5 - < 10 | 1222-05-5 | 214-946-9 | | 01-2119488227-29 |
| 3-Methyl-4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-3-buten-2-one | 5 - < 10 | 127-51-5 | 204-846-3 | | 01-2120138569-45 |
| Benzyl salicylate | 5 - < 10 | 118-58-1 | 204-262-9 | | 01-2119969442-31 |
| Linalool | 1 - < 5 | 78-70-6 | 201-134-4 | | 01-2119474016-42 |
| Linalyl acetate | 1 - < 5 | 115-95-7 | 204-116-4 | | 01-2119454789-19 |
| (2E)-2-Ethyl-4-(2,2,3-trimethyl-3-cyclopenten-1-yl)-2-buten-1-ol | 2,5 - < 5 | 106185-75-5 | 701-122-3 | | 01-2119529224-45 |



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|---|--------------|------------|-----------|-----|------------------|
| Vanillin | 1 - < 5 | 121-33-5 | 204-465-2 | | 01-2119516040-60 |
| (Ethoxymethoxy)cyclododecane | 2,5 - < 5 | 58567-11-6 | 261-332-1 | | 01-2119971571-34 |
| Reaction mass of: (E)-oxacyclohexadec-12-en-2-one; (E)-oxacyclohexadec-13-en-2-one | 2,5 - < 5 | 34902-57-3 | 422-320-3 | | 01-0000016883-62 |
| Piperonal | 1 - < 5 | 120-57-0 | 204-409-7 | | 01-2119983608-21 |
| 3,7-Dimethylnona-1,6-dien-3-ol | 1 - < 5 | 10339-55-6 | 233-732-6 | | 01-2119969272-32 |
| 3-methyl-5-(2,2,3-trimethyl-3-cyclopenten-1-yl)pent-4-en-2-ol | 2,5 - < 5 | 67801-20-1 | 267-140-4 | | 01-2119940039-39 |
| Oxydipropanol | 1 - < 5 | 25265-71-8 | 246-770-3 | MAC | |
| 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 |
| Methyl 2,4-dihydroxy-3,6-dimethylbenzoate | 0,1 - < 1 | 4707-47-5 | 225-193-0 | | |
| [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 | 0,25 - < 1 | 469-61-4 | 207-418-4 | | |
| 3,7-Dimethyloctan-3-ol | 0,1 - < 1 | 78-69-3 | 201-133-9 | | 01-2119454788-21 |
| (Z)-3-hexenyl salicylate | 0,25 - < 1 | 65405-77-8 | 265-745-8 | | 01-2119987320-37 |
| Bornan-2-one | 0,1 - < 1 | 76-22-2 | 200-945-0 | | |
| Coumarin | 0,1 - < 1 | 91-64-5 | 202-086-7 | | 01-2119949300-45 |
| p-Cresol | 0,1 - < 1 | 106-44-5 | 203-398-6 | | |
| Benzyl acetate | 0,1 - < 1 | 140-11-4 | 205-399-7 | | |
| Citronellol | 0,1 - < 1 | 106-22-9 | 203-375-0 | | 01-2119453995-23 |
| d-Limonene | 0,25 - < 1 | 5989-27-5 | 227-813-5 | | 01-2119529223-47 |
| Isoeugenol | 0,01 - < 0,1 | 97-54-1 | 202-590-7 | | |
| (E)-1-(2,6,6-trimethyl-1,3-cyclohexadien-1-yl)-2-buten-1-one | 0,01 - < 0,1 | 23726-93-4 | 245-844-2 | | 01-2120105798-49 |

| 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 |
| 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 |
| 3-Methyl-4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-3-buten-2-one | Aquatic Chronic 2 | H411 | GHS09 | |
| 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 | |
| (2E)-2-Ethyl-4-(2,2,3-trimethyl-3-cyclopenten-1-yl)-2-buten-1-ol | Eye Irrit. 2; Aquatic Chronic 2 | H319; H411 | GHS07; GHS09 | |
| Vanillin | Eye Irrit. 2 | H319 | GHS07 | |
| (Ethoxymethoxy)cyclododecane | Skin Irrit. 2; Skin Sens. 1B; Aquatic Chronic 2 | H315; H317; H411 | GHS07; GHS09 | |
| 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 |
| Piperonal | Skin Sens. 1 | H317 | GHS07 | |
| 3,7-Dimethylnona-1,6-dien-3-ol | Skin Irrit. 2; Eye Irrit. 2 | H315; H319 | GHS07 | |
| 3-methyl-5-(2,2,3-trimethyl-3-cyclopenten-1-yl)pent-4-en-2-ol | Aquatic Chronic 2 | H411 | GHS09 | |
| Oxydipropanol | ----- | ----- | ----- | |



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|--|---|--|----------------------------|------------------------------------|
| 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 | |
| Methyl 2,4-dihydroxy-3,6-dimethylbenzoate | Skin Sens. 1B | H317 | GHS07 | |
| [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 |
| 3,7-Dimethyloctan-3-ol | Skin Irrit. 2; Skin Sens. 1B; Eye Irrit. 2 | H315; H317; H319 | GHS07 | |
| (Z)-3-hexenyl salicylate | Aquatic Acute 1; Aquatic Chronic 1 | H400; H410 | GHS09 | M (acute) = 1 M (chronic) = 1 |
| Bornan-2-one | Flam. Sol. 2; Acute Tox. 4; STOT SE 2; Aquatic Chronic 2 | H228; H302; H332; H371; H411 | GHS02; GHS07; GHS08; GHS09 | |
| Coumarin | Acute Tox. 4; Skin Sens. 1B; Aquatic Chronic 3 | H302; H317; H412 | GHS07 | |
| p-Cresol | Acute Tox. 3; Acute Tox. 3; Skin Corr. 1B; Eye Dam. 1; Aquatic Chronic 3 | H301; H311; H314; H318; H412 | GHS05; GHS06 | M (chronic) = 1 |
| Benzyl acetate | Aquatic Chronic 3 | H412 | ----- | |
| Citronellol | Eye Irrit. 2; Skin Irrit. 2; Skin Sens. 1B | H319; H317; H315 | GHS07 | |
| d-Limonene | Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1B; Aquatic Acute 1; Aquatic Chronic 1 | H226; H304; H315; H317; H400; H410 | GHS02; GHS07; GHS08; GHS09 | M (acute) = 1 |
| 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 \geq 0.01 % |
| (E)-1-(2,6,6-trimethyl-1,3-cyclohexadien-1-yl)-2-buten-1-one | Skin Irrit. 2; Skin Sens. 1A; Aquatic Chronic 2 | H315; H317; H411 | GHS07; GHS09 | |

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

7.1. Precautions for safe handling

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



7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

Use : Use only as directed.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

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

Workplace exposure limits (mg/m³):

| Chemical name | Country | TWA 8 hour (mg/m ³) | STEL 15 min (mg/m ³) | Comments | Source |
|----------------|---------|---------------------------------|----------------------------------|----------|-------------------------|
| Oxydipropanol | GB | 67 | - | - | MAC: DE |
| Bornan-2-one | | 13 | 19 | | MAC BG, BE, EL, NO, etc |
| Bornan-2-one | | 12 | - | | MAC: SL, DK, FI |
| p-Cresol | | 22 | - | | MAC: LT |
| Benzyl acetate | | 5 | - | | MAC: DE, CH |
| d-Limonene | | 28 | 80 | | |

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 | | | 1,73 mg/kg bw/day |
| | Inhalation | | | | 1,76 mg/m ³ |
| 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/m ³ |
| Benzyl salicylate | Dermal | | | | 0,9 mg/kg bw/day |
| | Inhalation | | | | 3,17 mg/m ³ |
| Linalool | Dermal | | 5 mg/kg bw | | 2,5 mg/kg bw/day |
| | Inhalation | | 16,5 mg/m ³ | | 2,8 mg/m ³ |
| Linalyl acetate | Dermal | 0,2362 mg/kg bw | | 0,2362 mg/kg bw/day | 2,5 mg/kg bw/day |
| | Inhalation | | | | 2,75 mg/m ³ |
| (2E)-2-Ethyl-4-(2,2,3-trimethyl-3-cyclopenten-1-yl)-2-buten-1-ol | Dermal | | | | 6 mg/kg bw/day |
| | Inhalation | | | | 21 mg/m ³ |
| (Ethoxymethoxy)cyclododecane | Dermal | | | | 3,3 mg/kg bw/day |
| | Inhalation | | | | 23,5 mg/m ³ |
| Piperonal | Dermal | | | | 0,5 mg/kg bw/day |
| | Inhalation | | | | 3,5 mg/m ³ |
| 3,7-Dimethylnona-1,6-dien-3-ol | Dermal | 16 mg/kg bw | 5,5 mg/kg bw | 16 mg/kg bw/day | 2,7 mg/kg bw/day |
| | Inhalation | | 18 mg/m ³ | | 3 mg/m ³ |



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|---|------------|--|---------------|--------------------|-------------------|
| 3-methyl-5-(2,2,3-trimethyl-3-cyclopenten-1-yl)pent-4-en-2-ol | Dermal | | | | 6,67 mg/kg bw/day |
| Oxydipropanol | Inhalation | | | | 92,75 mg/m3 |
| | Dermal | | | | 84 mg/kg bw/day |
| 1,2,3,5,6,7-Hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one | Inhalation | | | | 238 mg/m3 |
| | Dermal | | | 5,510 mg/kg bw/day | 0,42 mg/kg bw/day |
| Methyl 2,4-dihydroxy-3,6-dimethylbenzoate | Inhalation | | | | 1,47 mg/m3 |
| | Dermal | | | 2,5 mg/kg bw/day | |
| 3,7-Dimethyloctan-3-ol | Dermal | | | | 2,5 mg/kg bw/day |
| | Inhalation | | | | 2,75 mg/m3 |
| (Z)-3-hexenyl salicylate | Dermal | | | | 0,9 mg/kg bw/day |
| | Inhalation | | | | 1,59 mg/m3 |
| Bornan-2-one | Dermal | | | | 10 mg/kg bw/day |
| | Inhalation | | | | 17,632 mg/m3 |
| Coumarin | Dermal | | | | 0,79 mg/kg bw/day |
| | Inhalation | | | | 6,78 mg/m3 |
| p-Cresol | Dermal | | 1 mg/kg bw | | 0,5 mg/kg bw/day |
| | Inhalation | | 233 mg/m3 | | 3,5 mg/m3 |
| Benzyl acetate | Dermal | | 12,5 mg/kg bw | | 6,25 mg/kg bw/day |
| | Inhalation | | 43,8 mg/m3 | | 21,9 mg/m3 |
| Citronellol | Dermal | | | | 45,8 mg/kg bw/day |
| | Inhalation | | | | 161,6 mg/m3 |
| d-Limonene | Inhalation | | | | 33,3 mg/m3 |
| | Dermal | | | | 0,77 mg/kg bw/day |
| (E)-1-(2,6,6-trimethyl-1,3-cyclohexadien-1-yl)-2-buten-1-one | Inhalation | | | | 2,71 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 |
| | 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 | | | | 0,7 mg/m3 |
| | Oral | | | | 1,2 mg/kg bw |
| 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 |
| (2E)-2-Ethyl-4-(2,2,3-trimethyl-3-cyclopenten-1-yl)-2-buten-1-ol | Dermal | | | | 3 mg/kg bw/day |
| | Inhalation | | | | 5,2 mg/m3 |
| | Oral | | | | 3 mg/kg bw/day |
| (Ethoxymethoxy)cyclododecane | Dermal | | | | 1,67 mg/kg bw/day |



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| | | | | | |
|---|------------------------------|-------------|---|--------------------|--|
| Piperonal | Inhalation Oral Dermal | | | | 5,8 mg/m ³ 1,67 mg/kg bw/day 0,25 mg/kg bw/day |
| 3,7-Dimethylnona-1,6-dien-3-ol | Inhalation Oral Dermal | 16 mg/kg bw | 2,7 mg/kg bw 4,4 mg/m ³ 1,3 mg/kg bw | 16 mg/kg bw/day | 0,87 mg/m ³ 0,25 mg/kg bw/day 1,4 mg/kg bw/day 0,74 mg/m ³ 0,2 mg/kg bw/day 3,33 mg/kg bw/day |
| 3-methyl-5-(2,2,3-trimethyl-3-cyclopenten-1-yl)pent-4-en-2-ol | Dermal | | | | |
| Oxydipropanol | Inhalation Oral Dermal | | | | 23,15 mg/m ³ 3,33 mg/kg bw/day 51 mg/kg bw/day |
| 1,2,3,5,6,7-Hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one | Inhalation Oral Dermal | | | 3,241 mg/kg bw/day | 70 mg/m ³ 24 mg/kg bw/day 0,25 mg/kg bw/day |
| Methyl 2,4-dihydroxy-3,6-dimethylbenzoate | Inhalation Oral Dermal | | | 1,25 mg/kg bw/day | 0,44 mg/m ³ 0,25 mg/kg bw/day |
| 3,7-Dimethyloctan-3-ol | Dermal | | | | 1,25 mg/kg bw/day |
| (Z)-3-hexenyl salicylate | Inhalation Oral Dermal | | | | 0,68 mg/m ³ 0,2 mg/kg bw/day 0,45 mg/kg bw/day |
| Bornan-2-one | Inhalation Oral Dermal | | | | 0,39 mg/m ³ 0,23 mg/kg bw/day 5 mg/kg bw/day |
| Coumarin | Inhalation Oral Dermal | | | | 4,348 mg/m ³ 5 mg/kg bw/day 0,39 mg/kg bw/day |
| p-Cresol | Inhalation Oral Dermal | | 0,5 mg/kg bw | | 0,39 mg/kg bw/day 0,25 mg/kg bw/day |
| Benzyl acetate | Inhalation Oral Dermal | | 150 mg/m ³ 0,5 mg/kg bw | | 0,75 mg/m ³ 0,25 mg/kg bw/day |
| Citronellol | Inhalation Oral Dermal | | 6,25 mg/kg bw | | 3,125 mg/kg bw/day 5,5 mg/m ³ 3,125 mg/kg bw/day |
| d-Limonene | Inhalation Oral Dermal | | 6,25 mg/kg bw | | 27,5 mg/kg bw/day 47,8 mg/m ³ 13,75 mg/kg bw/day |
| (E)-1-(2,6,6-trimethyl-1,3-cyclohexadien-1-yl)-2-buten-1-one | Inhalation Oral Dermal | | | | 8,33 mg/m ³ 4,76 mg/kg bw/day 0,38 mg/kg bw/day |
| | Inhalation Oral | | | | 0,67 mg/m ³ 0,38 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 |



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|--|--------------------|--------------|--------------|-----------------|
| Benzyl salicylate | Soil | | | 0,31 mg/kg |
| | Oral | | | 3,3 mg/kg food |
| | Water | 0,00103 mg/l | 0,00010 mg/l | |
| | Sediment | 0,583 mg/kg | 0,0583 mg/kg | |
| | Intermittent water | | | 0,01030 mg/l |
| Linalool | STP | | | 10 mg/l |
| | Soil | | | 0,116 mg/kg |
| | Oral | | | 80 mg/kg food |
| | Water | 0,2 mg/l | 0,02 mg/l | |
| | Sediment | 2,22 mg/kg | 0,222 mg/kg | |
| Linalyl acetate | Intermittent water | | | 2 mg/l |
| | STP | | | 10 mg/l |
| | Soil | | | 0,327 mg/kg |
| | Oral | | | 7,8 mg/kg food |
| | Water | 0,011 mg/l | 0,001 mg/l | |
| (2E)-2-Ethyl-4-(2,2,3-trimethyl-3-cyclopenten-1-yl)-2-buten-1-ol | Sediment | 0,609 mg/kg | 0,061 mg/kg | |
| | Intermittent water | | | 0,11 mg/l |
| | STP | | | 10 mg/l |
| | Soil | | | 0,115 mg/kg |
| | Water | 0,0088 mg/l | 0,00088 mg/l | |
| Vanillin | Sediment | 1,05 mg/kg | 0,105 mg/kg | |
| | STP | | | 1 mg/l |
| | Soil | | | 0,206 mg/kg |
| | Oral | | | 20 mg/kg food |
| | Water | 0,118 mg/l | 0,0118 mg/l | |
| (Ethoxymethoxy)cyclododecane | Sediment | 58,22 mg/kg | 5,822 mg/kg | |
| | STP | | | 10 mg/l |
| | Soil | | | 11,54 mg/kg |
| | Water | 0,0016 mg/l | 0,00016 mg/l | |
| | Sediment | 2,35 mg/kg | 0,235 mg/kg | |
| Piperonal | Intermittent water | | | 0,016 mg/l |
| | STP | | | 100 mg/l |
| | Soil | | | 0,468 mg/kg |
| | Oral | | | 33,3 mg/kg food |
| | Water | 0,0025 mg/l | 0,00025 mg/l | |
| 3,7-Dimethylnona-1,6-dien-3-ol | Sediment | 0,0119 mg/kg | 0,0012 mg/kg | |
| | Intermittent water | | | 0,025 mg/l |
| | STP | | | 10 mg/l |
| | Soil | | | 0,00084 mg/kg |
| | Water | 0,023 mg/l | 0,0023 mg/l | |
| 3-methyl-5-(2,2,3-trimethyl-3-cyclopenten-1-yl)pent-4-en-2-ol | Sediment | 0,223 mg/kg | 0,0223 mg/kg | |
| | Intermittent water | | | 0,23 mg/l |
| | STP | | | 10 mg/l |
| | Soil | | | 0,031 mg/kg |
| | Oral | | | 8,53 mg/kg food |
| Oxydipropanol | Water | 0,0019 mg/l | 0,00019 mg/l | |
| | Sediment | 0,067 mg/kg | 0,0067 mg/kg | |
| | Intermittent water | | | 0,019 mg/l |
| | STP | | | 1 mg/l |
| | Soil | | | 0,0534 mg/kg |
| | Oral | | | 33,3 mg/kg food |
| | Water | 0,1 mg/l | 0,01 mg/l | |
| | Sediment | 0,238 mg/kg | 0,0238 mg/kg | |
| | Intermittent water | | | 1 mg/l |



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|--|--------------------|--------------|---------------|-----------------|
| 1,2,3,5,6,7-Hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one | STP | | | 1000 mg/l |
| | Soil | | | 0,0253 mg/kg |
| | Oral | | | 313 mg/kg food |
| | Water | 0,004 mg/l | 0 mg/l | |
| | Sediment | 0,0991 mg/kg | 0,00991 mg/kg | |
| | STP | | | 10 mg/l |
| Methyl 2,4-dihydroxy-3,6-dimethylbenzoate | Soil | | | 0,0174 mg/kg |
| | Oral | | | 1,11 mg/kg food |
| | Water | 0,0033 mg/l | 0,00033 mg/l | |
| | Sediment | 0,089 mg/kg | 0,0089 mg/kg | |
| 3,7-Dimethyloctan-3-ol | STP | | | 10 mg/l |
| | Soil | | | 0,016 mg/kg |
| | Water | 0,0089 mg/l | 0,00089 mg/l | |
| | Sediment | 0,0821 mg/kg | 0,00821 mg/kg | |
| (Z)-3-hexenyl salicylate | Intermittent water | | | 0,089 mg/l |
| | STP | | | 450 mg/l |
| | Soil | | | 0,0112 mg/kg |
| | Water | 0,00061 mg/l | 0,000061 mg/l | |
| | Sediment | 0,11 mg/kg | 0,011 mg/kg | |
| | Intermittent water | | | 0,0061 mg/l |
| Bornan-2-one | STP | | | 10 mg/l |
| | Soil | | | 0,0217 mg/kg |
| | Oral | | | 40 mg/kg food |
| | Water | 0,00171 mg/l | 0,000171 mg/l | |
| | Sediment | 0,139 mg/kg | 0,017 mg/kg | |
| | STP | | | 1 mg/l |
| Coumarin | Soil | | | 0,013 mg/kg |
| | Water | 0,019 mg/l | 0,0019 mg/l | |
| | Sediment | 0,15 mg/kg | 0,015 mg/kg | |
| | Intermittent water | | | 0,0142 mg/l |
| | STP | | | 6,4 mg/l |
| | Soil | | | 0,018 mg/kg |
| p-Cresol | Oral | | | 30,7 mg/kg food |
| | Water | 0,1 mg/l | 0,01 mg/l | |
| | Sediment | 0,85 mg/kg | 0,085 mg/kg | |
| | Intermittent water | | | 0,044 mg/l |
| | STP | | | 1,65 mg/l |
| | Soil | | | 0,111 mg/kg |
| Benzyl acetate | Water | 0,004 mg/l | 0,0004 mg/l | |
| | Sediment | 0,114 mg/kg | 0,0114 mg/kg | |
| | Intermittent water | | | 0,04 mg/l |
| | STP | | | 8,55 mg/l |
| Citronellol | Soil | | | 0,0205 mg/kg |
| | 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 |
| 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 |



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| | | | | |
|--|----------|--------------|---------------|-----------------|
| (E)-1-(2,6,6-trimethyl-1,3-cyclohexadien-1-yl)-2-buten-1-one | Water | 0,00109 mg/l | 0,0011 mg/l | |
| | Sediment | 0,087 mg/kg | 0,00867 mg/kg | |
| | STP | | | 3,2 mg/l |
| | Soil | | | 0,017 mg/kg |
| | Oral | | | 6,67 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. Suitable: gas filter type A (brown), class I or higher on e.g. a facemask in accordance with EN 140.
- Hand protection : Wear appropriate safety gloves in accordance with EN 374. Suitable material: nitril. ± 0,5 mm. Indication of permeation breakthrough time: not known.
- Eye protection : Wear appropriate safety glasses with side shields, in accordance with EN 166, when there is danger of possible eye contact.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| | | |
|---|-------------------|---|
| Appearance | : Liquid. | Impregnated material. |
| Colour | : Light yellow. | |
| Odour | : Perfumed. | |
| Odour threshold | : Not known. | |
| pH | : Not applicable. | Waterfree product. |
| Solubility in water | : Not soluble. | |
| Partition coefficient (n-octanol/water) | : Not known. | Not measured. Not relevant for mixtures. |
| Flash point | : > 100 °C | |
| Flammability (solid, gas) | : Not applicable. | Liquid. See flashpoint. |
| Auto ignition temperature | : > 200 °C | |
| Boiling point/boiling range | : > 100 °C | |
| Melting point/melting range | : < 0 °C | |
| Explosive properties | : None known. | Does not contain explosives. |
| Explosion limits (% in air) | : Not known. | Lower explosion limit in air (%): 0,7 (Linalyl acetate) Upper explosion limit in air (%): 5,2 (Linalool) |
| Oxidising properties | : Not applicable. | Does not contain oxidizing substances. |
| Decomposition temperature | : Not applicable. | |
| Viscosity (20°C) | : Not known. | |
| Viscosity (40°C) | : Not applicable. | |
| Vapour pressure (20°C) | : Not known. | |
| Vapour density (20°C) | : > 1 | (air = 1) |



Relative density (20°C) : 1 g/ml
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

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: 80 %. ATE: > 5 mg/l. Not classified - based on available data, the classification criteria are not met.
- Corrosion/irritation : Not classified - based on available data, the classification criteria are not met.
- Sensitisation : Does not contain substances classified as respiratory sensitiser. Not classified - based on available data, the classification criteria are not met.
- Carcinogenicity : Not 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: > 5000 mg/kg.bw. Ingredients of unknown toxicity: < 1 %. ATE: > 2000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.
- Corrosion/irritation : 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



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- Acute toxicity : Calculated LD50: > 3743 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, vomiting and diarrhoea.
- 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.
- 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 | ---- | |
| | 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 | |
| Linalool | | Eye irritation | Moderately irritant | ---- | Rabbit |
| | | 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 | |
| Linalyl acetate | Skin irritation | Mildly irritant | ---- | Human | |
| | LD50 (oral) | 2790 mg/kg bw | ---- | Rat | |
| | NOAEL (oral) | 117 mg/kg bw/d | ---- | Rat | |
| | 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 | |



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| | | | | | |
|--|------------------------------|-------------------------|---------------|------------------------|-----------------|
| (2E)-2-Ethyl-4-(2,2,3-trimethyl-3-cyclopenten-1-yl)-2-buten-1-ol | 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 | |
| | LD50 (oral) | > 2000 mg/kg bw | OECD 401 | Rat | |
| | | | | | |
| | | Eye irritation | Irritant | OECD 405 | Rabbit |
| Vanillin | Skin irritation | Slightly irritant | OECD 404 | Rabbit | |
| | NOAEL (fertility, oral) | > 300 mg/kg bw/d | OECD 422 | Rat | |
| | Mutagenicity | Negative | OECD 471 | Salmonella typhimurium | |
| | Genotoxicity - in vitro | Not genotoxic | OECD 476 | | |
| | Skin sensitisation | Not sensitizing | OECD 406 | Guinea pig | |
| | NOAEL (oral) | 981 mg/kg bw/d | OECD 408 | Rat | |
| | LD50 (dermal) | > 2000 mg/kg bw | | Rabbit | |
| | LD50 (oral) | > 3500 mg/kg bw | ----- | Rat | |
| | LD50 (dermal) | > 5010 mg/kg bw | | Rabbit | |
| | Skin sensitisation | Sensitizing. | | Guinea pig | |
| | Skin irritation | Non-irritant | ----- | Rabbit | |
| | Eye irritation | Slightly irritant | ----- | Rabbit | |
| | NOEL (carcinogenicity, oral) | Not carcinogenic | ----- | Rat | |
| | Mutagenicity | Negative | OECD 471 | Salmonella typhimurium | |
| | NOEL (oral) | 2500 mg/kg bw/d | | Rat | |
| | NOAEL (development, oral) | > 500 mg/kg bw/d | ----- | Rat | |
| | | | | | |
| | | Genotoxicity - in vitro | Not genotoxic | OECD 473 | |
| (Ethoxymethoxy)cyclododecane | NOAEL (oral) | > 650 mg/kg bw/d | OECD 408 | Rat | |
| | 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 | |
| Piperonal | Skin sensitisation | Sensitizing. | OECD 429 | Mouse | |
| | 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 | |
| 3,7-Dimethylnona-1,6-dien-3-ol | LD50 (oral) | 5000 mg/kg bw | ----- | Rat | |



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| | | | | | |
|--|-----------------------------------|------------------------------|-----------------|------------------------|--------|
| 1,2,3,5,6,7-Hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one | LD50 (dermal) | > 5000 mg/kg bw | ----- | Rabbit | |
| | NOAEL (oral) - estimate | 117 mg/kg bw/d | Read across | Rat | |
| | NOAEL (dermal) - estimate | 250 mg/kg bw/d | Read across | Rat | |
| | Mutagenicity | Not mutagenic | OECD 471 | Salmonella typhimurium | |
| | Genotoxicity - estimate | Not genotoxic | Read across | | |
| | Skin irritation | Irritant | ----- | Rabbit | |
| | Eye irritation | Irritant | ----- | Rabbit | |
| | Genotoxicity - in vitro | Not genotoxic | OECD 476 | Mouse | |
| | LD50 (oral) | > 2325 mg/kg bw | OECD 401 | Rat | |
| | Mutagenicity | Negative | OECD 471 | Salmonella typhimurium | |
| Methyl 2,4-dihydroxy-3,6-dimethylbenzoate | Skin irritation | Irritant | | Human | |
| | Eye irritation | Irritant | ----- | ----- | |
| | NOAEL (oral) | 10 mg/kg bw/d | OECD 408 | Rat | |
| | NOAEL (development, oral) | 115 mg/kg bw/d | OECD 421 | Rat | |
| | NOAEL (fertility, oral) | 115 mg/kg bw/d | OECD 421 | Rat | |
| | LD50 (oral) | > 5000 mg/kg bw | OECD 401 | Rat | |
| | 3,7-Dimethyloctan-3-ol | LD50 (dermal) | > 5000 mg/kg bw | OECD 402 | Rat |
| | | LC50 (inhalation) - estimate | > 5000 mg/m3 | | Rat |
| | | Eye irritation | Non-irritant | | Rabbit |
| | | Skin irritation | Irritant | | Rabbit |
| 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 | |
| Coumarin | LD50 (dermal) | > 5000 mg/kg bw | | Rabbit | |
| | LD50 (oral) | 8270 mg/kg bw | | Rat | |
| | Skin sensitisation | Sensitizing. | OECD 429 | Mouse | |
| | Skin sensitisation | > 12500 ug/cm2 | OECD 429 | Mouse | |
| | NOAEL (development, oral) | > 115 mg/kg bw/d | | Mouse | |
| | Eye irritation | Non-irritant | | Rabbit | |
| | LD50 (oral) | 680 mg/kg bw | ----- | Rat | |
| | NOAEL (oral) | > 138,3 mg/kg bw/d | | Mouse | |
| | Skin irritation | Non-irritant | | Rabbit | |
| | Genotoxicity - in vitro | Not genotoxic | OECD 476 | | |
| Citronellol | Mutagenicity | Negative | OECD 471 | Salmonella typhimurium | |
| | Genotoxicity - in vivo | > 105 mg/kg bw/d | OECD 474 | Mouse | |
| | NOEL (carcinogenicity) - estimate | Not carcinogenic | | | |
| | 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 | |



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| | | | | |
|--|--|---------------------|-------------|------------------------|
| d-Limonene | LD50 (oral) | 3450 mg/kg bw | ---- | Rat |
| | LD50 (dermal) | 2650 mg/kg bw | | Rabbit |
| | 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 |
| | 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 | |
| Isoeugenol | Eye irritation | Non-irritant | OECD 405 | Rabbit |
| | NOEL (carcinogenicity, oral) | > 300 mg/kg bw/d | OECD 451 | Rat |
| | Genotoxicity - in vivo | > 2000 mg/kg bw/d | | Rat |
| | 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 |
| | NOAEL (development) - estimate | 400 mg/kg.d | Read across | Rat |
| | NOAEL (oral) - estimate | 30 mg/kg bw/d | Read across | Rat |
| | Skin sensitisation | Sensitizing. | OECD 429 | Mouse |
| (E)-1-(2,6,6-trimethyl-1,3-cyclohexadien-1-yl)-2-buten-1-one | Eye irritation - estimate | Non-irritant | Read across | Rabbit |
| | Skin irritation | Irritant | ---- | ---- |
| | LD50 (dermal) - estimate | > 2150 mg/kg bw | Read across | Rat |
| | LD50 (oral) | > 2000 mg/kg bw | ---- | Rat |

SECTION 12 ECOLOGICAL INFORMATION

12.1. Toxicity

No ecotoxicological research has been carried out on this product.

Ecotoxicity : Very toxic to aquatic organisms. Calculated LC50 (fish): 2 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.

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-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 | | |
| 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 (alga) | > 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 | | |
| 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 |
| [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 | Log P(ow) | 5,02 | | |
| | LC50 (fish) - estimate | 0,055 mg/l | ---- | ---- |
| | EC50 (waterflea) - estimate | > 0,01 mg/l | | |
| (Z)-3-hexenyl salicylate | Log P(ow) | 6,38 | | |
| | EC50 (waterflea) | 3,7 mg/l | OECD 202 | Daphnia magna |
| | IC50 (alga) | 0,61 mg/l | OECD 201 | Desmodesmus subspicatus |
| | Ultimate aerobic biodegradation (%) | 89 % | OECD 301 F | |
| d-Limonene | LC50 (fish) - estimate | 1,13 mg/l | | Brachydanio rerio |
| | Log P(ow) | 4,57 | | |
| | LC50 (fish) | 0,720 mg/l | OECD 203 | Pimephales promelas |
| | EC50 (waterflea) | 0,36 mg/l | OECD 202 | Daphnia magna |
| | Ultimate aerobic biodegradation (%) | > 92 % | | |



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| | | | | |
|--|---|---------------------|--|---------------|
| | NOEC (waterflea) - chronic Log P(ow) | 0,15 mg/l.d 4,38 | | Daphnia magna |
|--|---|---------------------|--|---------------|

SECTION 13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

- Product residues : Do not dispose empty pack with waste produced by households. Containers may be recycled. Treat product residues, impregnated wipes and non-empty pack as hazardous waste.
- Additional warning : None.
- Waste water discharge : Do not dispose into the environment, in drains or in water courses.
- European waste catalogue : Dispose hazardous waste in accordance with Directive 91/689/EEC under acknowledgement of a waste code according to Commission Decision 2000/532/EC to an official chemical waste depot.
- Local legislation : Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

SECTION 14 TRANSPORT INFORMATION

14.1. UN number

UN nr. : UN 3082

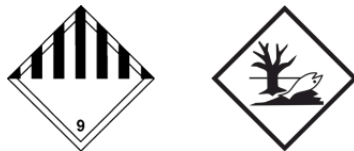
14.2. UN proper shipping name

- Transport name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one ; 1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran)
- 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 ; 1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran)

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

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



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| | |
|----------|--|
| 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. |

Full text of hazard classes mentioned in section 3:

| | |
|--------------------|---|
| Flam. Liq. 3 | : Flammable liquid, category 3. |
| Flam. Sol. 1 | : Flammable solid, category 1. |
| Acute Tox. 3 | : Acute toxicity, category 3. |
| Acute Tox. 4 | : Acute toxicity, category 4. |
| Skin Corr. 1A/B/C | : Skin corrosive, category 1A/B/C. |
| Skin Irrit. 2 | : Skin irritation, category 2. |
| Eye Dam. 1 | : Serious eye damage, category 1. |
| Eye Irrit. 2 | : Eye irritation, category 2. |
| Skin Sens. 1/1A/1B | : Skin sensitization, category 1/1A/1B. |
| STOT SE 2 | : Specific target organ toxicity after single exposure, category 2. |
| 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. |
| H228 | Flammable solid. |
| H301 | Toxic if swallowed. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H311 | Toxic in contact with skin. |
| H312 | Harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| 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. |
| H371 | May cause damage to organs. |
| 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. |



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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.