

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## ORANGE FLOWER & COCONUT

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	24.11.2022	298512	Date of first issue: 24.11.2022

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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Trade name : ORANGE FLOWER & COCONUT

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

Use of the Sub-stance/Mixture : Fragrance mix

#### 1.3 Details of the supplier of the safety data sheet

Candle Supply Pty Ltd  
Unit 3 8-9 Lagana Place  
Wetherill Park, NSW 2164  
ABN: 70612899626

Phone Number: 02 8741 4000  
e-mail: [customerservice@candlesupply.com.au](mailto:customerservice@candlesupply.com.au)

#### 1.4 Emergency telephone number: 13 11 26

### SECTION 2: Hazards identification

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#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Eye irritation, Category 2 H319: Causes serious eye irritation.

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

Long-term (chronic) aquatic hazard, Category 3 H412: Harmful to aquatic life with long lasting effects.

#### 2.2 Label elements


##### Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms	:	
Signal word	:	Warning
Hazard statements	:	H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects.
Precautionary statements	:	<b>Prevention:</b> P261 Avoid breathing mist or vapours. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P280 Wear protective gloves/ eye protection/ face protection. <b>Response:</b> P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention.

### Hazardous components which must be listed on the label:

(R)-p-mentha-1,8-diene; d-limonene  
linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool  
Coumarin  
Benzyl salicylate  
 $\alpha$ -Methyl-1,3-benzodioxole-5-propionaldehyde  
Pentadecan-15-olide  
3-(p-Cumenyl)-2-methylpropionaldehyde  
Geraniol  
Linalyl acetate  
3-(p-Methoxyphenyl)-2-methylpropionaldehyde  
(Z)-Hex-3-enyl benzoate  
3-(p-Cumenyl)-2-methylpropionaldehyde  
Pin-2(10)-ene  
Piperonal  
3-(4-tert-Butylphenyl)propionaldehyde  
(E)-1-(2,6,6-Trimethyl-1,3-cyclohexadien-1-yl)-2-buten-1-one

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

##### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isomers (cis and trans)	63500-71-0  405-040-6 603-101-00-3 01-0000015458-64  01-0000015458-64  01-0000015458-64  01-2119455547-30	Eye Irrit. 2; H319	>= 1 - < 10
(R)-p-mentha-1,8-diene; d-limonene	5989-27-5  227-813-5  601-029-00-7	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Skin Sens. 1B; H317 Asp. Tox. 1; H304 Aquatic Acute 1; H400 Aquatic Chronic 3; H412  M-Factor (Acute aquatic toxicity): 1	>= 2,5 - < 10
linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool	78-70-6  201-134-4  603-235-00-2	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1B; H317	>= 1 - < 10
Coumarin	91-64-5  202-086-7  01-2119949300-45  01-2119943756-26  01-2119949300-45  01-2119949300-45	Acute Tox. 4; H302 Skin Sens. 1B; H317 Aquatic Chronic 3; H412  Acute toxicity estimate  Acute oral toxicity: 500 mg/kg	>= 2,5 - < 10

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2-Phenylethanol	60-12-8 200-456-2 01-2119963921-31	Acute Tox. 4; H302 Eye Irrit. 2; H319	$\geq 1 - < 10$
Benzyl salicylate	118-58-1 204-262-9 01-2119969442-31 01-2119969442-31 01-2119969442-31	Eye Irrit. 2; H319 Skin Sens. 1B; H317 Aquatic Chronic 3; H412	$\geq 1 - < 2,5$
$\alpha$ -Methyl-1,3-benzodioxole-5-propionaldehyde	1205-17-0 214-881-6	Skin Sens. 1B; H317 Repr. 2; H361 Aquatic Chronic 2; H411	$\geq 0,25 - < 1$
Pentadecan-15-olide	106-02-5 203-354-6 01-2119987323-31-0000, 01-2119987323-31-0002	Skin Sens. 1B; H317 Aquatic Chronic 2; H411	$\geq 0,25 - < 1$
3-p-Cumenyl-2-methylpropionaldehyde	103-95-7 203-161-7	Skin Irrit. 2; H315 Skin Sens. 1B; H317 Aquatic Chronic 3; H412	$\geq 0,25 - < 1$
Geraniol	106-24-1 203-377-1	Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1B; H317	$\geq 0,1 - < 1$
Linalyl acetate	115-95-7 204-116-4	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1B; H317	$\geq 0,1 - < 1$
(3E)-1-oxacyclohexadec-3-en-2-one	34902-57-3 111879-80-2 422-320-3	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	$\geq 0,25 - < 1$
3-(p-Methoxyphenyl)-2-methylpropionaldehyde	5462-06-6 226-749-5	Skin Sens. 1B; H317	$\geq 0,1 - < 1$

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Allyl heptanoate	142-19-8	Acute Tox. 3; H301 Acute Tox. 3; H311 Aquatic Acute 1; H400 Aquatic Chronic 3; H412	>= 0,1 - < 0,25
	205-527-1 01-2119488961-23-0000	M-Factor (Acute aquatic toxicity): 1 <hr/> Acute toxicity estimate  Acute oral toxicity: 218 mg/kg Acute dermal toxicity: 810 mg/kg	
(Z)-Hex-3-enyl benzoate	25152-85-6 246-669-4	Skin Sens. 1B; H317 Aquatic Chronic 2; H411	>= 0,1 - < 0,25
3-(p-Cumenyl)-2-methylpropionaldehyde	6658-48-6 229-695-0 01-2120770116-58	Skin Irrit. 2; H315 Skin Sens. 1B; H317	>= 0,1 - < 1
Pin-2(10)-ene	127-91-3 18172-67-3 204-872-5 01-2119519230-54 01-2119519230-54 01-2119519230-54	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Skin Sens. 1B; H317 Asp. Tox. 1; H304 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0,1 - < 0,25
Piperonal	120-57-0 204-409-7 01-2119983608-21 01-2119983608-21 01-2119983608-21	Skin Sens. 1B; H317	>= 0,1 - < 1
3-(4-tert-Butylphenyl)propionaldehyde	18127-01-0	Skin Irrit. 2; H315 Skin Sens. 1B; H317	>= 0,1 - < 0,25

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	242-016-2 01-2119983533-30 01-2119983533-30	Repr. 2; H361 STOT RE 2; H373 Aquatic Chronic 3; H412	
[3R-(3 $\alpha$ ,3 $\alpha\beta$ ,7 $\beta$ ,8 $\alpha\alpha$ )]- 2,3,4,7,8,8a-Hexahydro-3,6,8,8- tetramethyl-1H-3a,7- methanoazulene	469-61-4 207-418-4	Skin Irrit. 2; H315 Asp. Tox. 1; H304 Aquatic Acute 1; H400 Aquatic Chronic 1; H410  M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10	$\geq 0,025 - < 0,1$
(E)-1-(2,6,6-Trimethyl-1,3- cyclohexadien-1-yl)-2-buten-1-one	23726-93-4 23696-85-7 245-844-2 01-2120105798-49 01-2120105798-49	Skin Irrit. 2; H315 Skin Sens. 1A; H317 Aquatic Chronic 2; H411	$\geq 0,0025 - < 0,025$

For explanation of abbreviations see section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- Protection of first-aiders : First Aid responders should pay attention to self-protection  
and use the recommended protective clothing
- If inhaled : Remove person to fresh air. If signs/symptoms continue, get  
medical attention.  
Keep patient warm and at rest.  
If breathing is irregular or stopped, administer artificial respira-  
tion.
- In case of skin contact : Take off contaminated clothing and shoes immediately.  
Wash off with soap and plenty of water.  
If symptoms persist, call a physician.
- In case of eye contact : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.

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Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.

If swallowed : Rinse mouth with water.  
Keep respiratory tract clear.  
Do NOT induce vomiting.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.

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

Risks : May cause an allergic skin reaction.  
Causes serious eye irritation.  
  
First aider needs to protect himself.

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

Treatment : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.  
There is no specific antidote available.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
  
Unsuitable extinguishing media : High volume water jet

### 5.2 Special hazards arising from the substance or mixture

Hazardous combustion products : No hazardous combustion products are known

### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.  
  
Further information : In the event of fire and/or explosion do not breathe fumes.  
Standard procedure for chemical fires.  
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.  
Use a water spray to cool fully closed containers.

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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.  
Ensure adequate ventilation.  
Evacuate personnel to safe areas.

#### 6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

#### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

#### 6.4 Reference to other sections

For disposal considerations see section 13., For personal protection see section 8.

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### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of aerosol.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : When using do not eat or drink. When using do not smoke.  
Wash hands before breaks and at the end of workday.

#### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully re-sealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.

Advice on common storage : No special restrictions on storage with other products.

Storage class (TRGS 510) : 10, Combustible liquids



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Further information on storage stability : No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

Specific use(s) : Fragrance mix

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
(R)-p-mentha-1,8-diene; d-limonene	5989-27-5	MAK	5 ppm 28 mg/m <sup>3</sup>	DFG
		AGW	5 ppm 28 mg/m <sup>3</sup>	DE TRGS 900
Oxydipropanol	25265-71-8	MAK (Vapor and aerosol, inhalable fraction.)	100 mg/m <sup>3</sup>	DFG
		AGW (inhalable fraction)	100 mg/m <sup>3</sup>	DE TRGS 900
Further information: Sum of vapors and aerosols.				

#### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
3-(2,2-dimethyl-3-hydroxypropyl)toluene;(alt.): 2,2-dimethyl-3-(3-methylphenyl)propanol	Workers	Inhalation	Long-term systemic effects	5,1 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	1,45 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	0,899 mg/m <sup>3</sup>
	Consumers	Skin contact	Long-term systemic effects	0,517 mg/kg bw/day
Citronellyl acetate	Consumers	Ingestion	Long-term systemic effects	0,517 mg/kg bw/day
	Workers	Inhalation	Long-term systemic effects	17 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	4,8 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	4,2 mg/m <sup>3</sup>
	Consumers	Skin contact	Long-term systemic effects	2,4 mg/kg bw/day

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	Consumers	Ingestion	Long-term systemic effects	2,4 mg/kg bw/day
Allyl heptanoate	Workers	Inhalation	Long-term systemic effects	16 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	4,7 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	4,1 mg/m <sup>3</sup>
	Consumers	Skin contact	Long-term systemic effects	2,3 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	2,3 mg/kg bw/day
Methyl benzoate	Workers	Inhalation	Long-term systemic effects	39,3 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	11 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	9,68 mg/m <sup>3</sup>
	Consumers	Skin contact	Long-term systemic effects	5,57 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	5,57 mg/kg bw/day

### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
3-(2,2-dimethyl-3-hydroxypropyl)toluene;(alt.): 2,2-dimethyl-3-(3-methylphenyl)propanol	Fresh water	0,0108 mg/l
	Fresh water sediment	0,544 mg/kg dry weight (d.w.)
	Marine water	0,00108 mg/l
	Marine sediment	0,054 mg/kg dry weight (d.w.)
	Sewage treatment plant	1,7 mg/l
	Soil	0,102 mg/kg dry weight (d.w.)
Citronellyl acetate	Fresh water	0,003 mg/l
	Fresh water sediment	0,851 mg/kg dry weight (d.w.)
	Marine water	0,000348 mg/l
	Marine sediment	0,085 mg/kg dry weight (d.w.)
	Sewage treatment plant	10 mg/l
	Soil	0,168 mg/kg dry weight (d.w.)
Allyl heptanoate	Fresh water	0,00012 mg/l
	Fresh water sediment	0,012 mg/kg dry weight (d.w.)
	Marine water	0,000012 mg/l
	Marine sediment	0,001 mg/kg dry weight (d.w.)
	Sewage treatment plant	10 mg/l

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	Soil	0,002 mg/kg dry weight (d.w.)
Methyl benzoate	Fresh water	0,023 mg/l
	Fresh water sediment	0,492 mg/kg dry weight (d.w.)
	Marine water	0,002 mg/l
	Marine sediment	0,049 mg/kg dry weight (d.w.)
	Sewage treatment plant	8,15 mg/l
	Soil	0,085 mg/kg dry weight (d.w.)
Pentadecan-15-olide	Fresh water	0,0027 mg/l
	Fresh water sediment	21 mg/kg dry weight (d.w.)
	Marine water	0,00027 mg/l
	Marine sediment	4,2 mg/kg dry weight (d.w.)
	Sewage treatment plant	10 mg/l
	Soil	5,44 mg/kg dry weight (d.w.)

### 8.2 Exposure controls

#### Personal protective equipment

Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles  
Wear face-shield and protective suit for abnormal processing problems.

Hand protection

Remarks : Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). As the product is a mixture of several substances, the durability of the glove materials cannot be calculated in advance and has to be tested before use. Wear chemicals-resistant gloves, e.g. safety gloves of nitril (thickness 0.4mm) or of butyl rubber (thickness 0.7mm).

Skin and body protection : Impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : Not required; except in case of aerosol formation.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state : clear liquid

Colour : colorless to yellow

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Odour	:	characteristic
Odour Threshold	:	No data available
Melting point/freezing point	:	not determined
Boiling point/boiling range	:	not determined
Upper explosion limit / Upper flammability limit	:	Vapours may form explosive mixtures with air.
Lower explosion limit / Lower flammability limit	:	Vapours may form explosive mixtures with air.
Flash point	:	94 °C
Decomposition temperature	:	not determined
pH	:	Not applicable
Viscosity	:	
Viscosity, dynamic	:	not determined
Viscosity, kinematic	:	not determined
Solubility(ies)	:	
Water solubility	:	immiscible
Partition coefficient: n-octanol/water	:	Not applicable
Vapour pressure	:	< 1 kPa (50 °C) calculated
Relative density	:	not determined
Bulk density	:	Not applicable
Relative vapour density	:	not determined

### 9.2 Other information

Explosives	:	Due to its structural properties, the product is not classified as explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Self-ignition	:	The substance or mixture is not classified as self heating.
Evaporation rate	:	Not applicable

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Molecular weight : Not applicable

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### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

No decomposition if stored and applied as directed.

#### 10.2 Chemical stability

No decomposition if stored and applied as directed.

#### 10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

Vapours may form explosive mixture with air.

#### 10.4 Conditions to avoid

Conditions to avoid : No data available

#### 10.5 Incompatible materials

Materials to avoid : No data available

#### 10.6 Hazardous decomposition products

No hazardous decomposition products are known.

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### SECTION 11: Toxicological information

#### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

##### Acute toxicity

Not classified based on available information.

##### Product:

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg  
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2.000 mg/kg  
Method: Calculation method

##### Components:

##### **tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isomers (cis and trans):**

Acute oral toxicity : LD50 Oral (Rat, male and female): > 2.000 mg/kg  
Method: OECD Test Guideline 401  
GLP: yes

Acute dermal toxicity : LD50 Dermal (Rabbit, male and female): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
GLP: no

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### **(R)-p-mentha-1,8-diene; d-limonene:**

Acute oral toxicity : LD50 Oral (Rat, female): > 2.000 mg/kg  
Method: OECD Test Guideline 423  
GLP: yes

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg  
Remarks: Information given is based on data obtained from similar substances.

### **linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool:**

Acute oral toxicity : LD50 (Rat, male and female): 2.790 mg/kg  
Method: OECD Test Guideline 401  
GLP: no  
Remarks: Weight of Evidence

Acute dermal toxicity : LD50 (Rabbit): 5.610 mg/kg  
Method: OECD Test Guideline 402  
GLP: no

### **Coumarin:**

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg

### **2-Phenylethanol:**

Acute oral toxicity : LD50 (Rat, male and female): 1.609,3 mg/kg  
Method: OECD Test Guideline 401  
GLP: yes

Acute dermal toxicity : LD50 (Rabbit, male and female): 2.535 mg/kg  
Method: OECD Test Guideline 402  
GLP: yes

### **Benzyl salicylate:**

Acute oral toxicity : LD50 Oral (Rat): 2.227 mg/kg

### **$\alpha$ -Methyl-1,3-benzodioxole-5-propionaldehyde:**

Acute oral toxicity : LD50 Oral (Rat, male and female): 3.561 mg/kg  
Method: OECD Test Guideline 401  
GLP: yes

Acute dermal toxicity : LD50 Dermal (Rabbit, male and female): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
GLP: yes

### **3-p-Cumenyl-2-methylpropionaldehyde:**

Acute oral toxicity : LD50 (Rat): 3.810 mg/kg

Acute dermal toxicity : LD50 Dermal (Rat): > 5.000 mg/kg

### **Geraniol:**

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Acute oral toxicity : LD50 Oral (Rat, male and female): 3.600 mg/kg  
GLP: No information available.

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5.000 mg/kg  
GLP: no

### **Linalyl acetate:**

Acute oral toxicity : LD50 (Rat, male and female): > 9.000 mg/kg  
GLP: no

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg  
GLP: no

### **(3E)-1-oxacyclohexadec-3-en-2-one:**

Acute oral toxicity : LD50 (Rat, male and female): > 2.000 mg/kg  
Method: OECD 423  
GLP: yes

Acute dermal toxicity : LD50 (Rat, male and female): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
GLP: yes

### **3-(p-Methoxyphenyl)-2-methylpropionaldehyde:**

Acute oral toxicity : LD50 Oral (Rat, male): 4.000 mg/kg  
Method: OECD Test Guideline 401  
GLP: no

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
GLP: yes

### **Allyl heptanoate:**

Acute oral toxicity : LD50 (Rat, male and female): 218 mg/kg  
Method: OECD Test Guideline 401  
GLP: no  
Remarks: Information given is based on data obtained from similar substances.

Acute toxicity estimate: 218 mg/kg  
Method: Calculation method

Acute dermal toxicity : LD50 (Rabbit): 810 mg/kg  
Method: OECD Test Guideline 402  
GLP: no

Acute toxicity estimate: 810 mg/kg  
Method: Calculation method

### **(Z)-Hex-3-enyl benzoate:**

Acute oral toxicity : LD50 Oral (Rat): > 5.000 mg/kg

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Method: OECD Test Guideline 401  
GLP: no

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5.000 mg/kg

### **3-(p-Cumenyl)-2-methylpropionaldehyde:**

Acute oral toxicity : LD50 Oral (Rat): > 5.000 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5.000 mg/kg

### **Pin-2(10)-ene:**

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg

### **Piperonal:**

Acute oral toxicity : LD50 (Rat): 2.700 mg/kg

### **3-(4-tert-Butylphenyl)propionaldehyde:**

Acute oral toxicity : LD50 Oral (Rat, male and female): > 2.000 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit, female): > 5.000 mg/kg

### **(E)-1-(2,6,6-Trimethyl-1,3-cyclohexadien-1-yl)-2-buten-1-one:**

Acute oral toxicity : LD50 Oral (Rat): > 5.000 mg/kg

Acute dermal toxicity : LD50 Dermal: 2.900 mg/kg

### **Skin corrosion/irritation**

Not classified based on available information.

### **Components:**

#### **tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isomers (cis and trans):**

Species : Rabbit  
Exposure time : 4 h  
Method : OECD Test Guideline 404  
Result : No skin irritation  
GLP : yes  
Dose : 0,5 ml  
Concentration : 100 %

#### **(R)-p-mentha-1,8-diene; d-limonene:**

Species : Rabbit  
Exposure time : 4 h  
Method : OECD Test Guideline 404  
Result : Skin irritation  
GLP : yes  
Concentration : 100 %



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### **linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool:**

Species : Rabbit  
Exposure time : 4 h  
Method : OECD Test Guideline 404  
Result : Skin irritation  
GLP : yes  
Concentration : 100 %

### **Coumarin:**

Species : Rabbit  
Method : Regulation (EC) No. 440/2008, Annex, B.4  
Result : No skin irritation  
GLP : yes

### **2-Phenylethanol:**

Species : Rabbit  
Exposure time : 4 h  
Result : Mild skin irritation  
GLP : No information available.  
Dose : 0,5 ml  
Concentration : 100 %

### **Benzyl salicylate:**

Species : Humans  
Result : No skin irritation  
Concentration : 30 %

Species : Rabbit  
Exposure time : 4 h  
Method : OECD Test Guideline 404  
Result : No skin irritation  
GLP : yes  
Concentration : 100 %

### **$\alpha$ -Methyl-1,3-benzodioxole-5-propionaldehyde:**

Species : Rabbit  
Exposure time : 4 h  
Method : OECD Test Guideline 404  
Result : No skin irritation  
GLP : no  
Dose : 0,5 ml  
Concentration : 100 %

### **Pentadecan-15-olide:**

Species : Rabbit  
Exposure time : 4 h  
Method : OECD Test Guideline 404  
Result : Mild skin irritation

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GLP : yes  
Dose : 0,5 ml  
Concentration : 100 %

### **3-p-Cumenyl-2-methylpropionaldehyde:**

Species : Humans  
Result : Mild skin irritation  
Concentration : 3 %

Species : Rabbit  
Result : Irritating to skin.

### **Geraniol:**

Species : Rabbit  
Exposure time : 4 h  
Method : OECD Test Guideline 404  
Result : Skin irritation  
GLP : yes  
Concentration : 100 %

### **Linalyl acetate:**

Species : Rabbit  
Exposure time : 4 h  
Method : OECD Test Guideline 404  
Result : Skin irritation  
GLP : No information available.  
Concentration : 100 %

### **(3E)-1-oxacyclohexadec-3-en-2-one:**

Species : Rabbit  
Exposure time : 4 h  
Method : OECD Test Guideline 404  
Result : Mild skin irritation  
GLP : yes  
Dose : 0,5 ml  
Concentration : 100 %

### **3-(p-Methoxyphenyl)-2-methylpropionaldehyde:**

Species : Human  
Exposure time : 15 min  
Method : OECD 439  
Result : No skin irritation  
GLP : yes  
Dose : 0,01 ml  
Concentration : 100 %

### **Allyl heptanoate:**

Species : reconstructed human epidermis (RhE)  
Exposure time : 15 min

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Method : Commission Regulation (EC) No. 440/2008 B46  
Result : No skin irritation  
GLP : yes  
Concentration : 100 %

### **(Z)-Hex-3-enyl benzoate:**

Species : reconstructed human epidermis (RhE)  
Exposure time : 15 min  
Method : OECD Test Guideline 439  
Result : No skin irritation  
GLP : yes  
Concentration : 100 %

### **3-(p-Cumenyl)-2-methylpropionaldehyde:**

Species : reconstructed human epidermis (RhE)  
Exposure time : 15 min  
Method : OECD 439  
Result : Skin irritation  
GLP : yes  
Dose : 0,025 ml  
Concentration : 100 %

### **Pin-2(10)-ene:**

Species : Rabbit  
Exposure time : 24 h  
Result : Moderate irritation of skin

Species : Humans  
Exposure time : 48 h  
Method : Closed patch test  
Result : No skin irritation  
Concentration : 12 %  
solvents : Petrolatum

### **Piperonal:**

Species : Guinea pig  
Result : No skin irritation  
Concentration : 20 %

### **3-(4-tert-Butylphenyl)propionaldehyde:**

Species : Rabbit  
Exposure time : 72 h  
Result : Severe skin irritation  
Dose : 0,2 ml  
Concentration : 100 %

### **(E)-1-(2,6,6-Trimethyl-1,3-cyclohexadien-1-yl)-2-buten-1-one:**

Species : Humans  
Exposure time : 24 h

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Method : HRIPT  
Result : No skin irritation  
Dose : 0,4 ml  
Concentration : 0,5 %  
  
Species : Rabbit  
Method : OECD Test Guideline 439  
Result : Skin irritation

### Serious eye damage/eye irritation

Causes serious eye irritation.

### Components:

#### **tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isomers (cis and trans):**

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : Irritating to eyes.  
GLP : yes  
Dose : 0,1 ML  
Concentration : 100 %

#### **(R)-p-mentha-1,8-diene; d-limonene:**

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : Mild eye irritation  
GLP : yes  
Concentration : 100 %

#### **linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool:**

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : Irritating to eyes.  
GLP : no  
Concentration : 100 %  
Remarks : Weight of Evidence

### **Coumarin:**

Species : Rabbit  
Exposure time : 96 h  
Result : No eye irritation  
GLP : yes  
Dose : 50 MG  
Concentration : 100 %

### **2-Phenylethanol:**

Species : Rabbit  
Result : Eye irritation  
GLP : no

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### **Benzyl salicylate:**

Species : Rabbit  
Method : Draize Test  
Result : Eye irritation  
GLP : no  
Dose : 0,1 ML

### **$\alpha$ -Methyl-1,3-benzodioxole-5-propionaldehyde:**

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : No eye irritation  
GLP : no  
Dose : 0,1 ML  
Concentration : 100 %

### **Pentadecan-15-olide:**

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : Mild eye irritation  
GLP : yes  
Dose : 0,1 ML  
Concentration : 100 %  
Remarks : Information given is based on data obtained from similar substances.

### **3-p-Cumenyl-2-methylpropionaldehyde:**

Species : Rabbit  
Result : No eye irritation  
Dose : 0,1 ML  
Concentration : 6 %  
solvents : Propylene glycol

### **Geraniol:**

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : Corrosive  
GLP : yes  
Concentration : 100 %

### **Linalyl acetate:**

Species : Rabbit  
Result : Eye irritation  
GLP : no  
Concentration : 100 %

### **(3E)-1-oxacyclohexadec-3-en-2-one:**

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : No eye irritation

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GLP : yes  
Dose : 0,1 ML  
Concentration : 100 %

### **3-(p-Methoxyphenyl)-2-methylpropionaldehyde:**

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : No eye irritation  
GLP : no  
Dose : 0,1 ML  
Concentration : 100 %

### **Allyl heptanoate:**

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : Mild eye irritation  
GLP : yes  
Concentration : 100 %

### **(Z)-Hex-3-enyl benzoate:**

Species : Chicken eye  
Method : OECD Test Guideline 438  
Result : No eye irritation  
GLP : yes  
Concentration : 100 %

### **3-(p-Cumenyl)-2-methylpropionaldehyde:**

Species : Bovine cornea  
Exposure time : 10 min  
Method : OECD 437  
Result : No eye irritation  
GLP : yes  
Concentration : 100 %

### **Piperonal:**

Remarks : No eye irritation

### **3-(4-tert-Butylphenyl)propionaldehyde:**

Species : Rabbit  
Result : Mild eye irritation  
Dose : 0,2 ML  
Concentration : 100 %

### **(E)-1-(2,6,6-Trimethyl-1,3-cyclohexadien-1-yl)-2-buten-1-one:**

Species : Rabbit  
Result : No eye irritation  
Dose : 0,1 ML  
Concentration : 0,5 %  
solvents : Propylene glycol

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### Respiratory or skin sensitisation

#### Skin sensitisation

May cause an allergic skin reaction.

#### Respiratory sensitisation

Not classified based on available information.

#### Components:

##### **tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isomers (cis and trans):**

Test Type : Maximisation Test  
Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : No sensitizing effect.  
GLP : yes  
Concentration : 25 %

##### **(R)-p-mentha-1,8-diene; d-limonene:**

Test Type : Local Lymph Node Assay  
Species : Mouse  
Method : OECD Test Guideline 429  
Result : Sensitizing effect.  
GLP : yes  
Concentration : 22 %  
solvents : Diethylphthalate/Ethyl alcohol (3:1)

##### **linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool:**

Test Type : Local Lymph Node Assay  
Species : Mouse  
Method : OECD 429  
Result : Sensitizing effect.  
GLP : yes  
Concentration : 35,5 %  
solvents : N,N-Dimethylformamide

##### **Coumarin:**

Test Type : Local Lymph Node Assay  
Species : Mouse  
Method : OECD 429  
Result : Sensitizing effect.  
GLP : No information available.  
Concentration : 2,4 - 3,7 %

##### **2-Phenylethanol:**

Test Type : Local Lymph Node Assay  
Species : Mouse  
Method : OECD 429  
Result : No sensitizing effect.  
GLP : yes

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Concentration : 50 %  
solvents : Diethylphthalate/Ethyl alcohol (3:1)

### **Benzyl salicylate:**

Test Type : Local Lymph Node Assay  
Species : Mouse  
Method : OECD 429  
Result : Sensitizing effect.  
GLP : yes  
Concentration : 2,9 %  
solvents : Diethylphthalate/Ethyl alcohol (3:1)

### **$\alpha$ -Methyl-1,3-benzodioxole-5-propionaldehyde:**

Test Type : Local Lymph Node Assay  
Species : Mouse  
Method : OECD 429  
Result : Sensitizing effect.  
GLP : yes  
Concentration : 16,4 %  
solvents : Diethylphthalate/Ethyl alcohol (3:1)

### **Pentadecan-15-olide:**

Test Type : HRIPT  
Species : Humans  
Result : No sensitizing effect.  
Concentration : 10 %  
solvents : Diethylphthalate/Ethyl alcohol (3:1)

Test Type : Local Lymph Node Assay  
Species : Mouse  
Method : OECD 429  
Result : Sensitizing effect.  
GLP : yes  
Concentration : 25,5 %  
solvents : Acetone/Olive oil (4:1)

### **3-p-Cumenyl-2-methylpropionaldehyde:**

Test Type : HRIPT  
Species : Humans  
Result : No sensitizing effect.  
Concentration : 2 %

Test Type : Local Lymph Node Assay  
Species : Mouse  
Method : OECD 429  
Result : Sensitizing effect.  
GLP : No information available.  
Concentration : 22,3 %  
solvents : Acetone/Olive oil (4:1)



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### Geraniol:

Test Type : Local Lymph Node Assay  
Species : Mouse  
Method : OECD 429  
Result : Sensitizing effect.  
GLP : No information available.  
Concentration : 11,4 %  
solvents : Diethylphthalate/Ethyl alcohol (3:1)

### (3E)-1-oxacyclohexadec-3-en-2-one:

Test Type : Maximisation Test  
Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : No sensitizing effect.  
GLP : yes  
Concentration : 100 %

Test Type : HRIPT  
Species : Humans  
Result : No sensitizing effect.  
Rate of positive effects : 0/104  
Concentration : 15 %  
solvents : Diethylphthalate

### 3-(p-Methoxyphenyl)-2-methylpropionaldehyde:

Test Type : Local Lymph Node Assay  
Species : Mouse  
Method : OECD 429  
Result : Sensitizing effect.  
GLP : yes  
Concentration : 23,63 %  
solvents : Diethylphthalate/Ethyl alcohol (3:1)

### Allyl heptanoate:

Test Type : Maximisation Test  
Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : No sensitizing effect.  
GLP : yes  
Concentration : 1 %  
solvents : sesame oil

### (Z)-Hex-3-enyl benzoate:

Test Type : Local Lymph Node Assay  
Species : Mouse  
Method : OECD 429  
Result : Sensitizing effect.  
GLP : yes  
Concentration : 24 %  
solvents : Acetone/Olive oil (4:1)

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### **3-(p-Cumenyl)-2-methylpropionaldehyde:**

Test Type : Local Lymph Node Assay  
Species : Mouse  
Method : OECD Test Guideline 406  
Result : Sensitizing effect.  
GLP : No information available.

### **Pin-2(10)-ene:**

Test Type : Maximisation Test  
Species : Humans  
Result : No sensitizing effect.  
Concentration : 12 %  
solvents : Petrolatum

### **3-(4-tert-Butylphenyl)propionaldehyde:**

Test Type : Local Lymph Node Assay  
Species : Mouse  
Method : OECD 429  
Result : Sensitizing effect.  
GLP : yes  
Concentration : 4,3 %  
solvents : Diethylphthalate/Ethyl alcohol (3:1)

### **(E)-1-(2,6,6-Trimethyl-1,3-cyclohexadien-1-yl)-2-buten-1-one:**

Test Type : Local Lymph Node Assay  
Species : Mouse  
Result : Sensitizing effect.  
Concentration : 1,24 %

### **Germ cell mutagenicity**

Not classified based on available information.

### **Components:**

#### **tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isomers (cis and trans):**

Genotoxicity in vitro : Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative  
GLP: yes

Test Type: In vitro Mammalian Chromosome Aberration Test  
Test system: Human lymphocytes  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 473  
Result: negative

Test Type: In vitro Mammalian Cell Gene Mutation Test  
Test system: V79 cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476

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Result: negative

Genotoxicity in vivo : Test Type: Mammalian Erythrocyte Micronucleus Test  
Species: Mouse (male and female)  
Cell type: Bone marrow  
Application Route: Oral  
Method: OECD Test Guideline 474  
Result: negative  
GLP: yes

### **(R)-p-mentha-1,8-diene; d-limonene:**

Genotoxicity in vitro : Test Type: In vitro Mammalian Cell Gene Mutation Test  
Test system: mouse lymphoma L5178Y cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476  
Result: negative

Test Type: sister chromatid exchange assay  
Test system: Chinese hamster ovary cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 479  
Result: negative  
GLP: no

Test Type: In vitro Mammalian Chromosome Aberration Test  
Test system: Chinese hamster ovary cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 473  
Result: negative  
GLP: no

Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative  
GLP: yes

Genotoxicity in vivo : Test Type: comet assay  
Species: Rat (male)  
Application Route: Oral  
Result: negative  
GLP: no

### **linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool:**

Genotoxicity in vitro : Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD 471  
Result: negative  
GLP: yes

Test Type: In vitro Mammalian Chromosome Aberration Test  
Test system: Chinese hamster ovary cells  
Metabolic activation: with and without metabolic activation

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Method: OECD 473  
Result: negative  
GLP: yes

Test Type: In vitro Mammalian Cell Gene Mutation Test  
Test system: mouse lymphoma L5178Y cells  
Metabolic activation: with and without metabolic activation  
Method: OECD 476  
Result: negative  
GLP: yes

Genotoxicity in vivo : Test Type: Mammalian Erythrocyte Micronucleus Test  
Species: Mouse (male and female)  
Cell type: Bone marrow  
Application Route: Oral  
Method: OECD Test Guideline 474  
Result: negative  
GLP: yes

### Coumarin:

Genotoxicity in vivo : Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD 471  
Result: negative  
GLP: No information available.

Test Type: In vitro Mammalian Chromosome Aberration Test  
Test system: Chinese hamster ovary cells  
Metabolic activation: with and without metabolic activation  
Method: OECD 473  
Result: Positive results were obtained in some in vitro tests.  
GLP: No information available.

Test Type: In vitro Mammalian Cell Gene Mutation Test  
Test system: Chinese hamster ovary cells  
Metabolic activation: with and without metabolic activation  
Method: OECD 476  
Result: negative  
GLP: No information available.

Test Type: sister chromatid exchange assay  
Test system: Chinese hamster ovary cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 479  
Result: negative  
GLP: No information available.

Genotoxicity in vivo : Test Type: Mammalian Erythrocyte Micronucleus Test  
Species: Mouse (male and female)  
Cell type: Bone marrow  
Application Route: Oral  
Method: OECD Test Guideline 474  
Result: negative

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GLP: No information available.

### 2-Phenylethanol:

Genotoxicity in vitro : Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD 471  
Result: negative  
GLP: yes

Test Type: In vitro Mammalian Cell Gene Mutation Test  
Test system: mouse lymphoma L5178Y cells  
Metabolic activation: with and without metabolic activation  
Method: OECD 476  
Result: negative  
GLP: yes

Test Type: In vitro Mammalian Chromosome Aberration Test  
Metabolic activation: with and without metabolic activation  
Method: OECD 473  
Result: negative  
GLP: yes

### Benzyl salicylate:

Genotoxicity in vitro : Test Type: Ames test  
Test system: Mammal cells  
Metabolic activation: with and without metabolic activation  
Method: OECD 471  
Result: negative

### $\alpha$ -Methyl-1,3-benzodioxole-5-propionaldehyde:

Genotoxicity in vivo : Test Type: Mammalian Erythrocyte Micronucleus Test  
Species: Mouse (male and female)  
Cell type: Bone marrow  
Application Route: Intraperitoneal injection  
Method: OECD Test Guideline 474  
Result: negative  
GLP: yes

### Pentadecan-15-olide:

Genotoxicity in vitro : Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD 471  
Result: negative  
GLP: yes

### 3-p-Cumenyl-2-methylpropionaldehyde:

Genotoxicity in vitro : Test Type: Ames test  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Method: OECD 471

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Result: negative  
GLP: yes

### Geraniol:

Genotoxicity in vitro : Test Type: In vitro Mammalian Cell Gene Mutation Test  
Test system: Chinese hamster ovary cells  
Metabolic activation: with and without metabolic activation  
Method: OECD 476  
Result: negative  
GLP: yes

Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Result: negative  
GLP: No information available.

Test Type: In vitro Mammalian Chromosome Aberration Test  
Result: equivocal  
GLP: No information available.

Test Type: sister chromatid exchange assay  
Test system: Chinese hamster ovary cells  
Result: negative  
GLP: No information available.

Genotoxicity in vivo : Test Type: Mammalian Erythrocyte Micronucleus Test  
Species: Mouse (male)  
Cell type: Bone marrow  
Application Route: Oral  
Method: OECD Test Guideline 474  
Result: negative  
GLP: yes

### Linalyl acetate:

Genotoxicity in vitro : Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative  
GLP: yes

Test Type: In vitro Mammalian Chromosome Aberration Test  
Test system: Human lymphocytes  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 473  
Result: negative  
GLP: yes

Test Type: In vitro Mammalian Cell Gene Mutation Test  
Test system: mouse lymphoma L5178Y cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476  
Result: negative  
GLP: yes

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Genotoxicity in vivo : Test Type: Mammalian Erythrocyte Micronucleus Test  
Species: Mouse (male and female)  
Strain: CD1  
Cell type: Bone marrow  
Application Route: Oral  
Method: OECD Test Guideline 474  
Result: negative  
GLP: yes

### **(3E)-1-oxacyclohexadec-3-en-2-one:**

Genotoxicity in vitro : Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD 471  
Result: negative  
GLP: yes

Test Type: In vitro Mammalian Chromosome Aberration Test  
Test system: Human lymphocytes  
Metabolic activation: with and without metabolic activation  
Method: OECD 473  
Result: negative  
GLP: yes

Test Type: In vitro Mammalian Cell Gene Mutation Test  
Test system: mouse lymphoma L5178Y cells  
Metabolic activation: with and without metabolic activation  
Method: OECD 476  
Result: negative

### **3-(p-Methoxyphenyl)-2-methylpropionaldehyde:**

Genotoxicity in vitro : Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD 471  
Result: negative  
GLP: yes

Test Type: In vitro Mammalian Cell Gene Mutation Test  
Test system: mouse lymphoma L5178Y cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 490  
Result: negative  
GLP: yes

Test Type: In Vitro Mammalian Cell Micronucleus Test  
Test system: Human lymphocytes  
Metabolic activation: with and without metabolic activation  
Method: OECD 487  
Result: negative  
GLP: yes

### **Allyl heptanoate:**

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Genotoxicity in vitro : Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD 471  
Result: negative  
GLP: yes

Test Type: In Vitro Mammalian Cell Micronucleus Test  
Test system: Human lymphocytes  
Metabolic activation: with and without metabolic activation  
Method: OECD 487  
Result: negative  
GLP: yes  
Remarks: Information given is based on data obtained from similar substances.

Test Type: In vitro Mammalian Cell Gene Mutation Test  
Test system: V79 cells  
Metabolic activation: with and without metabolic activation  
Method: OECD 476  
Result: negative  
GLP: yes  
Remarks: Information given is based on data obtained from similar substances.

### **(Z)-Hex-3-enyl benzoate:**

Genotoxicity in vitro : Test Type: Ames test  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Method: OECD 471  
Result: negative  
GLP: yes

Test Type: Ames test  
Test system: WP2 uvrA  
Metabolic activation: with and without metabolic activation  
Method: OECD 471  
Result: negative  
GLP: yes

### **3-(p-Cumenyl)-2-methylpropionaldehyde:**

Genotoxicity in vitro : Test Type: In vitro Mammalian Cell Gene Mutation Test  
Test system: mouse lymphoma L5178Y cells  
Metabolic activation: with and without metabolic activation  
Result: negative  
GLP: yes

Test Type: Micronucleus test  
Test system: Human lymphocytes  
Metabolic activation: with and without metabolic activation  
Method: OECD 487  
Result: negative  
GLP: yes



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Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD 471  
Result: negative  
GLP: yes

### **3-(4-tert-Butylphenyl)propionaldehyde:**

Genotoxicity in vitro : Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD 471  
Result: negative

### **(E)-1-(2,6,6-Trimethyl-1,3-cyclohexadien-1-yl)-2-buten-1-one:**

Genotoxicity in vitro : Test Type: Ames test  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Method: OECD 471  
Result: negative  
GLP: yes

Test Type: In vitro Mammalian Cell Gene Mutation Test  
Test system: Chinese hamster ovary cells  
Metabolic activation: with and without metabolic activation  
Method: OECD 476  
Result: negative  
GLP: yes

### **Carcinogenicity**

Not classified based on available information.

### **Reproductive toxicity**

Not classified based on available information.

### **STOT - single exposure**

Not classified based on available information.

### **STOT - repeated exposure**

Not classified based on available information.

### **Repeated dose toxicity**

### **Components:**

#### **Linalyl acetate:**

Species : Rat, male and female  
NOAEL : 160 mg/kg  
Application Route : Oral  
Exposure time : 28 d  
Number of exposures : daily  
Method : OECD Test Guideline 407  
GLP : yes

Species : Rat, male and female

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NOAEL	:	250 mg/kg
Application Route	:	Dermal
Exposure time	:	91 d
Number of exposures	:	daily
Method	:	OECD Test Guideline 411
GLP	:	yes

### Allyl heptanoate:

Species	:	Rat, male and female
NOAEL	:	88,665 mg/kg bw/day
Application Route	:	Oral
Exposure time	:	90 d
Number of exposures	:	daily
Method	:	OECD Test Guideline 408
GLP	:	yes
Remarks	:	Not classified due to data which are conclusive although insufficient for classification.

### Aspiration toxicity

Not classified based on available information.

## 11.2 Information on other hazards

### Endocrine disrupting properties

#### Product:

Assessment	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
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### Further information

#### Components:

##### Pin-2(10)-ene:

Remarks	:	Solvents may degrease the skin.
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## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

##### tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isomers (cis and trans):

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 354 mg/l End point: mortality Exposure time: 96 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 203
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GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): ca. 320 mg/l  
End point: Immobilization  
Exposure time: 48 h  
Test Type: static test  
Analytical monitoring: no  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l  
End point: Growth rate  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes

Toxicity to microorganisms : EC50 (Activated sludge): > 1.000 mg/l  
End point: Respiration inhibition  
Exposure time: 3 h  
Test Type: static test  
Method: OECD 209  
GLP: yes

### **(R)-p-mentha-1,8-diene; d-limonene:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 0,720 mg/l  
End point: mortality  
Exposure time: 96 h  
Test Type: flow-through test  
Analytical monitoring: yes  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,307 mg/l  
End point: Immobilization  
Exposure time: 48 h  
Test Type: semi-static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic plants : EC50 (Raphidocelis subcapitata (freshwater green alga)): 0,32 mg/l  
End point: Growth rate  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes

EC10 (Raphidocelis subcapitata (freshwater green alga)): 0,174 mg/l  
End point: Growth rate

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Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes

M-Factor (Acute aquatic toxicity) : 1

Toxicity to microorganisms : EC50 (Activated sludge): 209 mg/l  
Exposure time: 3 h  
Test Type: static test  
Analytical monitoring: no  
Method: OECD Test Guideline 209  
GLP: yes

EC10 (Activated sludge): 18 mg/l  
Exposure time: 3 h  
Test Type: static test  
Analytical monitoring: no  
Method: OECD Test Guideline 209  
GLP: yes

Toxicity to fish (Chronic toxicity) : EC10: > 0,37 - < 0,67 mg/l  
Exposure time: 8 d  
Species: Pimephales promelas (fathead minnow)  
Test Type: semi-static test  
Analytical monitoring: yes  
Method: OECD 212  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10: 0,153 mg/l  
End point: Reproduction rate  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Test Type: semi-static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 211  
GLP: yes

### **linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 27,8 mg/l  
End point: mortality  
Exposure time: 96 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 203  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 59 mg/l  
End point: Immobilization  
Exposure time: 48 h  
Test Type: static test

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Analytical monitoring: yes  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 156,7 mg/l  
End point: Growth rate  
Exposure time: 96 h  
Test Type: static test  
Analytical monitoring: no  
Method: DIN 38412 (part 9)  
GLP: no

EC10 (Desmodesmus subspicatus (green algae)): 54,3 mg/l  
End point: Growth rate  
Exposure time: 96 h  
Test Type: static test  
Analytical monitoring: no  
Method: DIN 38412 (part 9)  
GLP: no

Toxicity to microorganisms : EC50 (Activated sludge): > 100 mg/l  
End point: Respiration inhibition  
Exposure time: 3 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD 209  
GLP: yes

### Coumarin:

Toxicity to microorganisms : IC50 (Activated sludge): 640 mg/l  
End point: Respiration inhibition  
Exposure time: 3 h  
Test Type: static test  
Method: ISO 8192  
GLP: No information available.

### 2-Phenylethanol:

Toxicity to fish : LC50 (Golden orfe (Leuciscus idus)): > 215 - < 464 mg/l  
End point: mortality  
Exposure time: 96 h  
Test Type: static test  
Analytical monitoring: no  
Method: DIN 38412 (Part 15)  
GLP: no

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna): 287 mg/l  
End point: Swimming behavior  
Exposure time: 48 h  
Test Type: static test  
Analytical monitoring: no  
Method: Directive 67/548/EEC, Annex V, C.2.  
GLP: no

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Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 1,3 g/l  
End point: Growth rate  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: no  
Method: DIN 38412  
GLP: no

EC10 (Desmodesmus subspicatus (green algae)): 0,43 g/l  
End point: Growth rate  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: no  
Method: DIN 38412  
GLP: no

Toxicity to microorganisms : EC50 (Activated sludge): > 100 mg/l  
End point: Respiration inhibition  
Exposure time: 3 h  
Test Type: static test  
Analytical monitoring: no  
Method: OECD 209  
GLP: yes

NOEC (Activated sludge): 100 mg/l  
End point: Respiration inhibition  
Exposure time: 3 h  
Test Type: static test  
Analytical monitoring: no  
Method: OECD 209  
GLP: yes

### **Benzyl salicylate:**

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 1,03 mg/l  
End point: mortality  
Exposure time: 96 h  
Test Type: semi-static test  
Analytical monitoring: yes  
Method: Directive 67/548/EEC, Annex V, C.1.  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna): 1,16 mg/l  
End point: Immobilization  
Exposure time: 48 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 1,29 mg/l  
End point: Growth rate  
Exposure time: 72 h

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Method: OECD Test Guideline 201  
GLP: yes

NOEC (Pseudokirchneriella subcapitata (green algae)): 0,502 mg/l

End point: Growth rate  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
GLP: yes

Toxicity to soil dwelling organisms : LC50: > 1.000 mg/kg  
Exposure time: 14 d  
End point: mortality  
Species: Eisenia fetida (earthworms)  
Method: OECD Test Guideline 207  
GLP: yes

### **$\alpha$ -Methyl-1,3-benzodioxole-5-propionaldehyde:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 5,3 mg/l  
End point: mortality  
Exposure time: 96 h  
Test Type: semi-static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 203  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna Straus): 8,3 mg/l  
End point: Immobilization  
Exposure time: 48 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (algae)): 28 mg/l  
End point: Growth rate  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes

NOEC (Pseudokirchneriella subcapitata (algae)): 6,25 mg/l  
End point: Growth rate  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes

Toxicity to microorganisms : EC50 (Activated sludge): 100 - 1.000 mg/l  
End point: Respiration inhibition  
Exposure time: 3 h

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Test Type: static test  
Analytical monitoring: no  
Method: OECD 209  
GLP: yes

NOEC (Activated sludge): 100 mg/l  
End point: Respiration inhibition  
Exposure time: 3 h  
Test Type: static test  
Analytical monitoring: no  
Method: OECD 209  
GLP: yes

### **Pentadecan-15-olide:**

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 0,17 mg/l  
End point: Immobilization  
Exposure time: 48 h  
Test Type: semi-static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 202  
GLP: yes  
Remarks: No effect in the area of water solubility of the substance

Toxicity to algae/aquatic plants : ErC10 (Desmodesmus subspicatus (green algae)): 0,421 mg/l  
End point: Growth rate  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: Directive 67/548/EEC, Annex V, C.3.  
GLP: yes

Toxicity to microorganisms : EC50 (Activated sludge): > 10.000 mg/l  
End point: Respiration inhibition  
Exposure time: 30 min  
Test Type: Respiration inhibition  
Analytical monitoring: no  
Method: OECD 209  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,068 mg/l  
End point: Reproduction rate  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Test Type: semi-static test  
Analytical monitoring: yes  
Method: OECD 211  
GLP: yes

### **3-p-Cumenyl-2-methylpropionaldehyde:**

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna): 1,4 mg/l  
Exposure time: 48 h  
Test Type: semi-static test



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Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 3,8 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes

NOEC (Pseudokirchneriella subcapitata (green algae)): 0,7 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes

Toxicity to microorganisms : EC50 (Activated sludge): ca. 100 mg/l  
Exposure time: 3 h  
Test Type: static test  
Method: OECD 209  
GLP: yes

### Geraniol:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): ca. 22 mg/l  
End point: mortality  
Exposure time: 96 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 203  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 10,8 mg/l  
End point: Immobilization  
Exposure time: 48 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 202  
GLP: yes  
Remarks: Information given is based on data obtained from similar substances.

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 13,1 mg/l  
End point: Growth rate  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes  
Remarks: Information given is based on data obtained from similar substances.

EC10 (Desmodesmus subspicatus (green algae)): 3,77 mg/l

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End point: Growth rate  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes  
Remarks: Information given is based on data obtained from similar substances.

Toxicity to microorganisms : EC50 (Activated sludge): 144 mg/l  
Exposure time: 96 h  
Method: ISO 8192  
GLP: yes

### Linalyl acetate:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 11 mg/l  
End point: mortality  
Exposure time: 96 h  
Test Type: flow-through test  
Analytical monitoring: yes  
Method: OECD Test Guideline 203  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 59 mg/l  
End point: Immobilization  
Exposure time: 48 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic plants : EC10 (Desmodesmus subspicatus (green algae)): 54,3 mg/l  
End point: Growth rate  
Exposure time: 96 h  
Test Type: static test  
Analytical monitoring: no  
Method: DIN 38412 (part 9)  
GLP: no

EC50 (Desmodesmus subspicatus (green algae)): 156,7 mg/l  
End point: Growth rate  
Exposure time: 96 h  
Test Type: static test  
Analytical monitoring: no  
Method: DIN 38412 (part 9)  
GLP: no

Toxicity to microorganisms : EC20 (Activated sludge): > 1.000 mg/l  
End point: Respiration inhibition  
Exposure time: 0,5 h  
Test Type: static test  
Analytical monitoring: no  
Method: ISO 8192

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GLP: no

### **(3E)-1-oxacyclohexadec-3-en-2-one:**

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 0,8 mg/l  
Exposure time: 96 h  
Test Type: flow-through test  
Method: OECD Test Guideline 203  
GLP: yes  
Remarks: No effect in the area of water solubility of the substance
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 0,96 mg/l  
Exposure time: 48 h  
Test Type: semi-static test  
Method: OECD Test Guideline 202  
GLP: yes  
Remarks: No effect in the area of water solubility of the substance
- Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): 5,17 mg/l  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes  
Remarks: No effect in the area of water solubility of the substance
- Toxicity to microorganisms : EC50 (Activated sludge): > 100 mg/l  
End point: Respiration inhibition  
Exposure time: 3 h  
Test Type: static test  
Method: OECD 209  
GLP: yes
- Toxicity to fish (Chronic toxicity) : NOEC: 0,027 mg/l  
Exposure time: 33 d  
Species: Pimephales promelas (fathead minnow)  
Method: OECD 210  
GLP: yes
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: >= 0,039 mg/l  
End point: Immobilization  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Test Type: semi-static test  
Method: OECD 211  
GLP: yes

### **3-(p-Methoxyphenyl)-2-methylpropionaldehyde:**

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 5,2 mg/l  
End point: mortality  
Exposure time: 96 h  
Test Type: semi-static test

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Analytical monitoring: yes  
Method: OECD Test Guideline 203  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 12 mg/l  
End point: Immobilization  
Exposure time: 48 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic plants : EC10 (*Pseudokirchneriella subcapitata* (green algae)): 6,3 mg/l  
End point: Growth rate  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes

EC50 (*Pseudokirchneriella subcapitata* (green algae)): 21 mg/l  
End point: Growth rate  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes

### Allyl heptanoate:

Toxicity to fish : LC50 (*Danio rerio* (zebra fish)): 0,12 mg/l  
End point: mortality  
Exposure time: 96 h  
Test Type: semi-static test  
Method: OECD Test Guideline 203  
GLP: yes  
Remarks: Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna*): 0,89 mg/l  
End point: Immobilization  
Exposure time: 48 h  
Test Type: static test  
Analytical monitoring: no  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic plants : EC50 (*Desmodesmus subspicatus* (green algae)): > 4,6 mg/l  
End point: Growth rate  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201

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GLP: yes  
Remarks: Information given is based on data obtained from similar substances.

EC10 (Desmodesmus subspicatus (green algae)): 0,255 mg/l  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes  
Remarks: Information given is based on data obtained from similar substances.

M-Factor (Acute aquatic toxicity) : 1

### **(Z)-Hex-3-enyl benzoate:**

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1,5 mg/l  
End point: Immobilization  
Exposure time: 48 h  
Test Type: semi-static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 1,3 mg/l  
End point: Growth rate  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes

EC10 (Pseudokirchneriella subcapitata (green algae)): 0,38 mg/l  
End point: Growth rate  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes

### **3-(p-Cumenyl)-2-methylpropionaldehyde:**

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 11,3 mg/l  
End point: mortality  
Exposure time: 96 h  
Test Type: semi-static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 203  
GLP: yes

Toxicity to daphnia and other : EC50 (Daphnia magna Straus): 4,71 mg/l

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aquatic invertebrates	:	End point: Immobilization Exposure time: 48 h Test Type: semi-static test Analytical monitoring: yes Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (algae)): 1,44 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes  EC10 (Pseudokirchneriella subcapitata (algae)): 1,16 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes
Toxicity to microorganisms	:	EC50 (Activated sludge): > 100 mg/l End point: Respiration inhibition Exposure time: 3 h Test Type: static test Analytical monitoring: no Method: OECD 209 GLP: yes  NOEC (Activated sludge): 100 mg/l End point: Respiration inhibition Exposure time: 3 h Test Type: static test Analytical monitoring: no Method: OECD 209 GLP: yes

### **3-(4-tert-Butylphenyl)propionaldehyde:**

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 1,8 mg/l Exposure time: 48 h Test Type: semi-static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to microorganisms	:	EC50 (Activated sludge): 80 mg/l Exposure time: 3 h Test Type: static test Method: OECD 209 GLP: yes

### **[3R-(3 $\alpha$ ,3 $\beta$ ,7 $\beta$ ,8 $\alpha$ )]-2,3,4,7,8,8a-Hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene:**

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Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 0,044 mg/l  
Exposure time: 48 h

M-Factor (Acute aquatic toxicity) : 10

M-Factor (Chronic aquatic toxicity) : 10

### **(E)-1-(2,6,6-Trimethyl-1,3-cyclohexadien-1-yl)-2-buten-1-one:**

Toxicity to fish : LC50 (Fish): 1,09 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to microorganisms : EC50 (Bacteria): 275 mg/l  
Exposure time: 3 h  
Method: OECD 209

NOEC (Bacteria): 32 mg/l  
Exposure time: 3 h  
Method: OECD 209

## 12.2 Persistence and degradability

### **Components:**

#### **tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isomers (cis and trans):**

Biodegradability : Test Type: Closed Bottle test  
Result: Inherently biodegradable.  
Biodegradation: 64,8 %  
Exposure time: 60 d  
Method: OECD 301D  
GLP: no  
Remarks: Weight of Evidence

#### **(R)-p-mentha-1,8-diene; d-limonene:**

Biodegradability : Test Type: CO2 Evolution Test  
Result: Readily biodegradable.  
Biodegradation: 71 %  
Exposure time: 28 d  
Method: OECD 301B  
GLP: yes

#### **linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool:**

Biodegradability : Test Type: Closed Bottle test  
Result: Readily biodegradable.  
Biodegradation: 64,2 %  
Exposure time: 28 d  
Method: OECD 301D  
GLP: yes

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### **Coumarin:**

Biodegradability : Test Type: Manometric respiration test  
Inoculum: activated sludge  
Result: Readily biodegradable.  
Biodegradation: 90 %  
Exposure time: 28 d  
Method: OECD 301F  
GLP: yes

### **2-Phenylethanol:**

Biodegradability : Test Type: Sturm test, OECD 301-B, (CO<sub>2</sub>):  
Result: Readily biodegradable.  
Biodegradation: 100 %  
Exposure time: 28 d  
Method: OECD 301B  
GLP: no

### **Benzyl salicylate:**

Biodegradability : Test Type: Manometric respiration test  
Result: Readily biodegradable.  
Biodegradation: 93 %  
Exposure time: 28 d  
Method: OECD 301F  
GLP: yes

### **α-Methyl-1,3-benzodioxole-5-propionaldehyde:**

Biodegradability : Test Type: Manometric respiration test  
Result: not readily biodegradable (only 10 day window failed)  
Biodegradation: 65 %  
Exposure time: 28 d  
Method: OECD 301F  
GLP: yes

### **Pentadecan-15-olide:**

Biodegradability : Test Type: Manometric Respirometry Test  
Result: Readily biodegradable.  
Biodegradation: 90 %  
Exposure time: 28 d  
Method: OECD 301F  
GLP: yes

### **3-p-Cumenyl-2-methylpropionaldehyde:**

Biodegradability : Test Type: CO<sub>2</sub> Evolution Test  
Result: Readily biodegradable.  
Biodegradation: 66 %  
Exposure time: 28 d  
Method: OECD 301B  
GLP: No information available.



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### Geraniol:

Biodegradability : Test Type: Closed bottle test, OECD 301-D, (BOD[28]/COD):  
Result: Readily biodegradable.  
Biodegradation: 82 %  
Exposure time: 28 d  
Method: OECD 301D  
GLP: yes

Test Type: Manometric Respirometry Test  
Result: Readily biodegradable.  
Biodegradation: 86 %  
Exposure time: 28 d  
Method: OECD 301  
GLP: yes

### Linalyl acetate:

Biodegradability : Test Type: Manometric respiration test  
Result: Readily biodegradable.  
Biodegradation: 76 %  
Exposure time: 28 d  
Method: OECD 301F  
GLP: no

### (3E)-1-oxacyclohexadec-3-en-2-one:

Biodegradability : Test Type: Manometric respiration test  
Result: Readily biodegradable.  
Biodegradation: 97 %  
Exposure time: 28 d  
Method: OECD 301F  
GLP: yes

### 3-(p-Methoxyphenyl)-2-methylpropionaldehyde:

Biodegradability : Test Type: Manometric Respirometry Test  
Result: Readily biodegradable.  
Biodegradation: 81 %  
Exposure time: 28 d  
Method: OECD 301F  
GLP: yes

### Allyl heptanoate:

Biodegradability : Test Type: Manometric respiration test  
Result: Readily biodegradable.  
Biodegradation: 81 %  
Exposure time: 28 d  
Method: OECD 301F  
GLP: yes

### (Z)-Hex-3-enyl benzoate:

Biodegradability : Test Type: Closed Bottle test  
Result: Readily biodegradable.

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Biodegradation: 88 %  
Exposure time: 28 d  
Method: OECD 301D  
GLP: yes

### **3-(p-Cumenyl)-2-methylpropionaldehyde:**

Biodegradability : Test Type: Manometric Respirometry Test  
Result: Readily biodegradable.  
Biodegradation: 76 %  
Exposure time: 28 d  
Method: OECD 301F  
GLP: yes

### **Pin-2(10)-ene:**

Biodegradability : Test Type: Manometric respiration test  
Result: Readily biodegradable.  
Biodegradation: 81 %  
Exposure time: 28 d  
Method: OECD 301F  
GLP: yes

### **Piperonal:**

Biodegradability : Test Type: Manometric respiration test  
Result: Readily biodegradable.  
Biodegradation: 82 %  
Exposure time: 28 d  
Method: OECD 301F  
GLP: yes

### **3-(4-tert-Butylphenyl)propionaldehyde:**

Biodegradability : Test Type: Manometric respiration test  
Result: Readily biodegradable.  
Biodegradation: 65 %  
Exposure time: 28 d  
Method: OECD 301F  
GLP: yes

### **[3R-(3 $\alpha$ ,3 $\beta$ ,7 $\beta$ ,8 $\alpha$ )]-2,3,4,7,8,8a-Hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene:**

Biodegradability : Test Type: Manometric respiration test  
Result: Readily biodegradable.  
Biodegradation: 78 %  
Exposure time: 28 d  
Method: OECD 301F  
GLP: yes

### **(E)-1-(2,6,6-Trimethyl-1,3-cyclohexadien-1-yl)-2-buten-1-one:**

Biodegradability : Test Type: Manometric respiration test  
Result: not readily biodegradable (only 10 day window failed)  
Biodegradation: 65 %

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Exposure time: 28 d  
Method: OECD 301F  
GLP: yes

### 12.3 Bioaccumulative potential

#### Components:

##### **tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isomers (cis and trans):**

Partition coefficient: n-octanol/water : log Pow: ca. 1,65 (23 °C)  
pH: > 6,09 - < 6,74  
Method: Regulation (EC) No. 440/2008, Annex, A.8  
GLP: yes

##### **(R)-p-mentha-1,8-diene; d-limonene:**

Partition coefficient: n-octanol/water : log Pow: 4,38 (37 °C)  
pH: 7,2  
Method: OECD Test Guideline 117

##### **linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool:**

Partition coefficient: n-octanol/water : log Pow: 2,84 (25 °C)  
Method: OECD Test Guideline 107  
GLP: no

##### **Coumarin:**

Partition coefficient: n-octanol/water : log Pow: 1,39

##### **2-Phenylethanol:**

Partition coefficient: n-octanol/water : log Pow: 1,3 (20 °C)  
pH: 7  
Method: OECD 117  
GLP: yes

##### **Benzyl salicylate:**

Partition coefficient: n-octanol/water : log Pow: 4,0 (35 °C)  
Method: OECD 117  
GLP: yes

##### **$\alpha$ -Methyl-1,3-benzodioxole-5-propionaldehyde:**

Partition coefficient: n-octanol/water : log Pow: 2,4 (25 °C)  
Method: OECD 117  
GLP: yes

##### **Pentadecan-15-olide:**

Partition coefficient: n-octanol/water : log Pow: 5,79 (25 °C)  
Method: OECD Test Guideline 123  
GLP: yes

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### 3-p-Cumenyl-2-methylpropionaldehyde:

Partition coefficient: n-octanol/water : log Pow: 3,4 (35 °C)  
Method: OECD 117  
GLP: yes

### Geraniol:

Partition coefficient: n-octanol/water : log Pow: 2,6 (25 °C)  
Method: OECD 117  
GLP: yes

### Linalyl acetate:

Partition coefficient: n-octanol/water : log Pow: 3,9 (25 °C)  
Method: OECD Test Guideline 107  
GLP: yes

### (3E)-1-oxacyclohexadec-3-en-2-one:

Partition coefficient: n-octanol/water : log Pow: 5,45 (25 °C)  
pH: 6,9  
Method: OECD 117  
GLP: yes

### 3-(p-Methoxyphenyl)-2-methylpropionaldehyde:

Partition coefficient: n-octanol/water : log Pow: 2,3 (25 °C)  
Method: OECD 117  
GLP: no

### Allyl heptanoate:

Partition coefficient: n-octanol/water : log Pow: 3,97 (20 °C)  
pH: 5,3  
Method: OECD Test Guideline 107  
GLP: yes

### (Z)-Hex-3-enyl benzoate:

Partition coefficient: n-octanol/water : log Pow: 4,5 (25 °C)  
Method: OECD 117  
GLP: no

### 3-(p-Cumenyl)-2-methylpropionaldehyde:

Partition coefficient: n-octanol/water : log Pow: 3,8 (35 °C)  
pH: 7  
Method: OECD 117  
GLP: yes

### Pin-2(10)-ene:

Partition coefficient: n-octanol/water : log Pow: 5,4 (35 °C)

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### Piperonal:

Partition coefficient: n-octanol/water : log Pow: 1,1

### 3-(4-tert-Butylphenyl)propionaldehyde:

Partition coefficient: n-octanol/water : log Pow: 3,2  
Method: OECD 117  
GLP: yes

log Pow: 3,2  
Method: OECD 117  
GLP: yes

### [3R-(3 $\alpha$ ,3 $\beta$ ,7 $\beta$ ,8 $\alpha$ )]-2,3,4,7,8,8a-Hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene:

Partition coefficient: n-octanol/water : log Pow: 6,09  
Remarks: calculated

### (E)-1-(2,6,6-Trimethyl-1,3-cyclohexadien-1-yl)-2-buten-1-one:

Bioaccumulation : Bioconcentration factor (BCF): 14 - 56  
Method: OECD Test Guideline 305C

Partition coefficient: n-octanol/water : log Pow: 3,4 (25 °C)  
Method: OECD Test Guideline 123

## 12.4 Mobility in soil

### Components:

#### tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isomers (cis and trans):

Distribution among environmental compartments : Adsorption/Soil  
Medium: Soil  
Koc: ca. 25, log Koc: ca. 1,4  
Method: OECD 121

#### 2-Phenylethanol:

Distribution among environmental compartments : Adsorption/Soil  
Medium: Soil  
log Koc: 1,5  
Method: OECD 121

#### Benzyl salicylate:

Distribution among environmental compartments : Adsorption/Soil  
Medium: Soil  
log Koc: 3,75  
Method: OECD 121

#### $\alpha$ -Methyl-1,3-benzodioxole-5-propionaldehyde:

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Distribution among environmental compartments : Adsorption/Soil  
Koc: 71,3, log Koc: 1,85  
Method: OECD 121

### **Pentadecan-15-olide:**

Distribution among environmental compartments : log Koc: 4,65  
Method: OECD 121

### **(3E)-1-oxacyclohexadec-3-en-2-one:**

Distribution among environmental compartments : Adsorption/Soil  
log Koc: 4,65  
Method: OECD 121

### **3-(p-Cumenyl)-2-methylpropionaldehyde:**

Distribution among environmental compartments : Adsorption/Soil  
Medium: Sludge  
log Koc: 3,2  
Method: OECD 121

## 12.5 Results of PBT and vPvB assessment

### **Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### **Components:**

#### **Pentadecan-15-olide:**

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB).

## 12.6 Endocrine disrupting properties

### **Product:**

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## 12.7 Other adverse effects

### **Product:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Harmful to aquatic life with long lasting effects.

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### **Components:**

#### **Coumarin:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Harmful to aquatic life with long lasting effects.

#### **Benzyl salicylate:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Harmful to aquatic life with long lasting effects.

#### **Pentadecan-15-olide:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Toxic to aquatic life with long lasting effects.

#### **Allyl heptanoate:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Very toxic to aquatic life.  
Very toxic to aquatic life with long lasting effects.  
Harmful to aquatic life with long lasting effects.

#### **3-(p-Cumenyl)-2-methylpropionaldehyde:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

#### **Pin-2(10)-ene:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Very toxic to aquatic life with long lasting effects.

#### **Piperonal:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

#### **3-(4-tert-Butylphenyl)propionaldehyde:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Harmful to aquatic life with long lasting effects.

#### **(E)-1-(2,6,6-Trimethyl-1,3-cyclohexadien-1-yl)-2-buten-1-one:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Toxic to aquatic life with long lasting effects.

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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

- Product : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.
- Contaminated packaging : Dispose of as unused product.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.

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### SECTION 14: Transport information

#### 14.1 UN number or ID number

Not regulated as a dangerous good

#### 14.2 UN proper shipping name

Not regulated as a dangerous good

#### 14.3 Transport hazard class(es)

Not regulated as a dangerous good

#### 14.4 Packing group

Not regulated as a dangerous good

#### 14.5 Environmental hazards

Not regulated as a dangerous good

#### 14.6 Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

#### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

---

### SECTION 15: Regulatory information

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

- REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered:  
Number on list 3
- Benzyl salicylate (Number on list 3)  
Benzyl acetate (Number on list 3)  
Methyl benzoate (Number on list 3)  
Hexyl acetate (Number on list 40, 3)  
Allyl heptanoate (Number on list 3)



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(Z)-Hex-3-enyl benzoate (Number on list 3)  
Juniper, Juniperus mexicana, ext. (Number on list 3)  
 $\alpha,\beta,2,2,3$ -Pentamethylcyclopent-3-ene-1-butanol (Number on list 3)  
3-(p-Methoxyphenyl)-2-methylpropionaldehyde (Number on list 3)  
3-(4-tert-Butylphenyl)propionaldehyde (Number on list 3)  
cis-Hex-3-en-1-ol (Number on list 40, 3)  
3-p-Cumenyl-2-methylpropionaldehyde (Number on list 3)  
2-Phenylethanol (Number on list 3)  
Linalyl acetate (Number on list 3)  
linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool (Number on list 3)  
Pin-2(10)-ene (Number on list 40, 3)  
Citronellyl acetate (Number on list 3)  
(3E)-1-oxacyclohexadec-3-en-2-one (Number on list 3)  
3-(2,2-dimethyl-3-hydroxypropyl)toluene;(alt.): 2,2-dimethyl-3-(3-methylphenyl)propanol (Number on list 3)  
Geraniol (Number on list 3)  
 $\alpha$ -Methyl-1,3-benzodioxole-5-propionaldehyde (Number on list 3)  
Orange, sweet, ext. (Number on list 40, 3)  
tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isomers (cis and trans) (Number on list 3)  
3-(p-Cumenyl)-2-methylpropionaldehyde (Number on list 3)

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.  
Not applicable

Water hazard class (Germany) : WGK 3 highly hazardous to water  
Classification according to AwSV, Annex 1 (5.2)

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TA Luft List (Germany) : Total dust:  
Not applicable  
Inorganic substances in powdered form:  
Not applicable  
Inorganic substances in vapour or gaseous form:  
Not applicable  
Organic Substances:  
portion Class 1: 1,15 %  
  
Carcinogenic substances:  
Not applicable  
Mutagenic:  
Not applicable  
Toxic to reproduction:  
Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)  
Volatile organic compounds (VOC) content: 6,56 %

### Other regulations:

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

### 15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

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## SECTION 16: Other information

### Full text of H-Statements

H226 : Flammable liquid and vapour.  
H301 : Toxic if swallowed.  
H302 : Harmful if swallowed.  
H304 : May be fatal if swallowed and enters airways.  
H311 : Toxic in contact with skin.  
H315 : Causes skin irritation.  
H317 : May cause an allergic skin reaction.  
H318 : Causes serious eye damage.  
H319 : Causes serious eye irritation.  
H361 : Suspected of damaging fertility or the unborn child.  
H373 : May cause damage to organs through prolonged or repeated exposure if swallowed.  
  
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.

### Full text of other abbreviations

Acute Tox. : Acute toxicity  
Aquatic Acute : Short-term (acute) aquatic hazard  
Aquatic Chronic : Long-term (chronic) aquatic hazard

# SAFETY DATA SHEET

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Asp. Tox.	:	Aspiration hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
Repr.	:	Reproductive toxicity
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT RE	:	Specific target organ toxicity - repeated exposure
DE TRGS 900	:	Germany. TRGS 900 - Occupational exposure limit values.
DFG	:	Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).
DE TRGS 900 / AGW	:	Exposure limit(s):
DFG / MAK	:	Maximum allowable concentration:

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECL - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

#### Classification of the mixture:

Eye Irrit. 2	H319
Skin Sens. 1	H317
Aquatic Chronic 3	H412

#### Classification procedure:

Calculation method
Calculation method
Calculation method

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*This SDS is current to the date listed above. However, the GHS classifications may change due to hazard communication updates by the overseeing governing body. For the most current SDS information please contact [customerservice@candlesupply.com.au](mailto:customerservice@candlesupply.com.au)*