



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Issuing Date: 14-Mar-2023

Revision Date: 14-Mar-2023

Revision Number 1

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

### 1.1. Product identifier

**Product Identifier** C-90405565-001\_RET\_CLPR7\_EUR  
**Product Name** Febreeze Bathroom Air Freshener Anti-Mould Odour Citrus Active  
**Product Form** Mixture  
**Pure substance/mixture** Mixture

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

**Recommended use** Intended for general public  
**Uses advised against** No information available  
**Main user category** SU 21 - Consumer uses: Private households (= general public = consumers)  
**Product category** Non-Energized & Continuous  
**Use category** PC3 - Air care products

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

Supplier	Manufacturer
Procter & Gamble UK Brooklands, Weybridge, Surrey, KT13 0XP, UK Tel: 01932 896000 Fax: 01932 896200	Zobe Bulgaria Eood Plovdiv district, Industrial zone Rakovski warehouse 2 Bulgaria, +359 2 9154 409, E-mail: poison_centre@mail.orbitel.bg; <a href="http://www.pirogov.bg">http://www.pirogov.bg</a>
P&G DCE bvba/spri-Belgium Dist. Div., Temselaan 100, B-1853 Strombeek-Bever, Belgium (IE) 1800 535 119	

For further information, please contact

**E-mail address** pgsds.im@pg.com

### 1.4. Emergency telephone number

Emergency Telephone (UK) Emergency Tel: 0800 328 8304 (IRL) Emergency Tel: 1800 509 497

(IRL) Poisons information: for information or to report a poisoning incident contact The National Poisons Information Centre 01 8092166 (8.00 a.m. to 10.00 p.m. 7 days a week)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

<b>Skin corrosion/irritation</b>	Category 2 - (H315)
<b>Serious eye damage/eye irritation</b>	Category 2 - (H319)
<b>Skin sensitization</b>	Category 1 - (H317)
<b>Chronic aquatic toxicity</b>	Category 2 - (H411)

### 2.2. Label elements

Contains Citral, Geraniol, Tetrahydrolinalool, Citronellol, Linalyl Acetate, Limonene, Eucalyptol, Methylundecanal, trans-2-Hexanal



**Signal word**  
 Warning

**Hazard statements**

H315 - Causes skin irritation  
 H317 - May cause an allergic skin reaction  
 H319 - Causes serious eye irritation  
 H411 - Toxic to aquatic life with long lasting effects

**Precautionary Statements - EU (§28, 1272/2008)**

P102 - Keep out of reach of children  
 P305 + P351 - IF IN EYES: Rinse cautiously with water for several minutes  
 P501 - Dispose of contents/container to an appropriate local waste system  
 P312 - Call a POISON CENTRE/doctor if you feel unwell  
 P302 + P352 - IF ON SKIN: Wash with plenty of water

**2.3. Other hazards**

No information available.

**Endocrine Disruptor Information**

**SECTION 3: Composition/information on ingredients**

**3.1 Substances**

Not applicable

**3.2 Mixtures**

Chemical name	CAS No	Weight-%	REACH registration number	EC No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Benzyl Acetate	140-11-4	10 - 20	01-2119638272-42	205-399-7	Aquatic Chronic 3(H412)	-	-	-
Tetrahydrolinalool	78-69-3	10 - 20	01-2119454788-21	201-133-9	Skin Irrit. 2(H315) Eye Irrit. 2(H319) Skin Sens. 1B(H317)	-	-	-
2,6-Dimethyl-7-Octen-2-ol	18479-51-1	5 - 10	No data available	242-359-8	Skin Irrit. 2(H315)	-	-	-
Citral	5392-40-5	5 - 10	01-2119462829-23	226-394-6	Skin Irrit. 2(H315) Skin Sens. 1(H317) Eye Irrit. 2(H319)	-	-	-
Phenethyl Alcohol	60-12-8	1 - 5	01-21199639	200-456-2	Acute Tox. 4	-	-	-

			21-31		(Oral)(H302) Eye Irrit. 2(H319)			
Citronellol	106-22-9	1 - 5	01-21194539 95-23	203-375-0	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Eye Irrit. 2(H319)	-	-	-
2-T-Butylcyclohexyl Acetate	20298-69-5	1 - 5	01-21199707 13-33	243-718-1	Aquatic Chronic 2(H411)	-	-	-
3,7-Dimethylnona-2, 6-Dienitrile	61792-11-8	1 - 5	01-21199677 69-11	263-214-5	Aquatic Chronic 2(H411)	-	-	-
Linalyl Acetate	115-95-7	1 - 5	01-21194547 89-19	204-116-4	Skin Irrit. 2(H315) Skin Sens. 1B(H317)	-	-	-
Geraniol	106-24-1	1 - 5	01-21195524 30-49	203-377-1	Skin Irrit. 2(H315) Eye Dam. 1(H318) Skin Sens. 1(H317)	-	-	-
Terpineol	98-55-5	1 - 5	01-21199807 17-23	202-680-6	Skin Irrit. 2(H315) Eye Irrit. 2(H319)	-	-	-
Limonene	5989-27-5	1 - 5	01-21195292 23-47	227-813-5	Flam. Liq. 3(H226) Skin Irrit. 2(H315) Skin Sens. 1B(H317) Asp. Tox. 1(H304) Aquatic Acute 1(H400) Aquatic Chronic 3(H412)	-	1	1
Eucalyptol	470-82-6	1 - 5	01-21199677 72-24	207-431-5	Flam. Liq. 3(H226) Skin Sens. 1B(H317)	-	-	-
Allyl Caproate	123-68-2	1 - 5	01-21199835 73-26	204-642-4	Acute Tox. 3 (Oral)(H301) Acute Tox. 3 (Dermal)(H3 11) Acute Tox. 3 (Inhalation:v apour)(H331) Aquatic Acute 1(H400) Aquatic Chronic 3(H412)	-	-	-
Methylundecanal	110-41-8	1 - 5	01-21199694 43-29	203-765-0	Skin Irrit. 2(H315)	-	1	1

					Skin Sens. 1B(H317) Aquatic Acute 1(H400) Aquatic Chronic 1(H410)			
Decanal	112-31-2	1 - 5	01-21199677 71-26	203-957-4	Eye Irrit. 2(H319) Aquatic Chronic 3(H412)	-	-	-
trans-2-Hexanal	6728-26-3	1 - 5	No data available	229-778-1	Skin Sens. 1B(H317) Skin Irrit. 2(H315) Flam. Liq. 3(H226) Eye Irrit. 2(H319) Acute Tox. 4 (Oral)(H302) Acute Tox. 3 (Dermal)(H311)	-	-	-
Dimethyl-3-Cyclohexene-1-Carbaldehyde	27939-60-2	<1	No data available	248-742-6	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Eye Irrit. 2(H319) Aquatic Chronic 2(H411)	-	-	-
Terpinolene	586-62-9	<1	No data available	209-578-0	Asp. Tox. 1(H304) Skin Sens. 1B(H317) Aquatic Acute 1(H400) Aquatic Chronic 1(H410)	-	1	1
Linalool	78-70-6	<1	01-21194740 16-42	201-134-4	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Eye Irrit. 2(H319)	-	-	-
Pinene	80-56-8	<1	01-21195192 23-49	201-291-9	Flam. Liq. 3(H226) Acute Tox. 4 (Oral)(H302) Asp. Tox. 1(H304) Skin Irrit. 2(H315) Skin Sens. 1B(H317) Aquatic Acute 1(H400)	-	1	1

					Aquatic Chronic 1(H410)			
p-Cymene	99-87-6	<1	01-21208073 45-59	202-796-7	Repr. 2(H361) Flam. Liq. 3(H226) Asp. Tox. 1(H304) Aquatic Chronic 2(H411) Acute Tox. 3 (Inhalation:vapour)(H331)	-	-	-
Diphenyl Ether	101-84-8	<1	01-21194725 45-33	202-981-2	Eye Irrit. 2(H319) Aquatic Acute 1(H400) Aquatic Chronic 3(H412)	-	1	-
Cyclamen Aldehyde	103-95-7	<1	01-21199705 82-32	203-161-7	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Aquatic Chronic 3(H412)	-	-	-
Terpinene	99-86-5	<1	No data available	202-795-1	Flam. Liq. 3(H226) Acute Tox. 4 (Oral)(H302) Asp. Tox. 1(H304) Aquatic Chronic 2(H411) Skin Sens. 1(H317)	-	-	-
Tetramethylbicyclo-2-heptene-2-propionaldehyde	33885-52-8	<1	No data available	251-718-8	Skin Sens. 1B(H317) Aquatic Acute 1(H400) Aquatic Chronic 1(H410)	-	1	1
Gamma-Terpinene	99-85-4	<1	01-21207804 78-40	202-794-6	Repr. 2(H361) Flam. Liq. 3(H226) Asp. Tox. 1(H304) Aquatic Chronic 2(H411)	-	-	-
Dihydro Pentamethylindanone	33704-61-9	<1	01-21199771 31-40	251-649-3	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Eye Irrit.	-	-	-

					2(H319) Aquatic Chronic 2(H411)			
4,8-Dimethyl-4,9-decadienal	71077-31-1	<1	01-00000159 90-66	275-174-6	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Aquatic Chronic 2(H411)	-	-	-
Isobutenyl Methyltetrahydropyr an	16409-43-1	<1	01-21199763 00-42	240-457-5	Skin Irrit. 2(H315) Eye Irrit. 2(H319) Repr. 2(H361f)	-	-	-
Undecanal	112-44-7	<1	01-21195292 42-47	203-972-6	Skin Irrit. 2(H315) Aquatic Acute 1(H400) Aquatic Chronic 1(H410)	-	-	-
Ethyl Methylphenylglycida te	77-83-8	<1	01-21199677 70-28	201-061-8	Skin Sens. 1B(H317) Aquatic Chronic 2(H411)	-	-	-
Hexanal	66-25-1	<1	01-21199628 90-29	200-624-5	Flam. Liq. 3(H226) Eye Irrit. 2(H319) Skin Irrit. 2(H315) Skin Sens. 1B(H317)	-	-	-
Lauraldehyde	112-54-9	<1	01-21199694 41-33	203-983-6	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Eye Irrit. 2(H319)	-	-	-
4-(heptyloxy)-3-met hylbutanal	1093653-57- 6	<1	01-21200898 68-31	802-100-7	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Aquatic Chronic 2(H411)	-	-	-
(E)-1-((3,6 and 4,6)-dimethylcycloh ex-3-en-1-yl)-2-meth ylpent-1-en-3-one	2248118-60- 5	<1	01-21208231 20-75	-	Acute Tox. 4 (Oral)(H302) Aquatic Acute 1(H400) Aquatic Chronic 1(H410)	-	-	-
trans-Menthone	89-80-5	<1	No data available	201-941-1	Skin Sens. 1B(H317) Skin Irrit. 2(H315)	-	-	-

					Aquatic Chronic 3(H412) Acute Tox. 4 (Oral)(H302)			
Delta-Damascone	57378-68-4	<1	01-21195351 22-53	260-709-8	Acute Tox. 4 (Oral)(H302) Skin Irrit. 2(H315) Skin Sens. 1A(H317) Aquatic Acute 1(H400) Aquatic Chronic 1(H410)	-	-	-
beta-Pinene	127-91-3	<1	01-21195192 30-54	204-872-5	Flam. Liq. 3(H226) Asp. Tox. 1(H304) Skin Irrit. 2(H315) Skin Sens. 1B(H317) Aquatic Acute 1(H400) Aquatic Chronic 1(H410)	-	1	1
Citronellal	106-23-0	<1	01-21194749 00-37	203-376-6	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Eye Irrit. 2(H319)	-	-	-
Anethole	4180-23-8	<1	01-21199790 97-22	224-052-0	Skin Sens. 1B(H317)	-	-	-
7,7,8,9,9-pentamethyl-6,6a,7,8,9,9a-hexahydro-5H-cyclopenta[h]quinazoline	1392325-86-8	<1	01-21200866 57-41	801-694-5	Acute Tox. 4 (Oral)(H302) Skin Irrit. 2(H315) Skin Sens. 1B(H317) Aquatic Acute 1(H400) Aquatic Chronic 1(H410)	-	-	-
Tridec-2-Enenitrile	22629-49-8	<1	No data available	245-142-6	Aquatic Acute 1(H400) Aquatic Chronic 1(H410)	-	10	10

**Full text of H- and EUH-phrases: see section 16**

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATE<sub>mix</sub>) for classifying a mixture based on its components

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
p-Cymene	No data available	No data available	No data available	3+	No data available
Terpinene	1680+	No data available	No data available	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59).

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

<b>General advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. (Call a physician if symptoms occur).
<b>Eye contact</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
<b>Skin contact</b>	IF ON SKIN: Wash with plenty of soap and water. Remove and isolate contaminated clothing and shoes. Get medical attention if symptoms occur. Discontinue use of product.
<b>Ingestion</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.
<b>Self-protection of the first aider</b>	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

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

<b>Symptoms</b>	Coughing and/ or wheezing. Redness. Swelling of tissue. Itching. Drowsiness. Dizziness. Sneezing. Dryness. Pain. Blurred vision. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Excessive secretion. Shortness of breath. Headache.
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### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Note to physicians</b>	May cause sensitization in susceptible persons. Treat symptomatically.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

<b>Suitable Extinguishing Media</b>	Dry chemical. Alcohol resistant foam. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.

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

<b>Specific hazards arising from the chemical</b>	None in particular.
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### 5.3. Advice for firefighters

<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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## SECTION 6: Accidental release measures

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

<b>Personal precautions</b>	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

### 6.2. Environmental precautions

<b>Environmental precautions</b>	See Section 12 for additional Ecological Information.
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**6.3. Methods and material for containment and cleaning up**

**Methods for containment** Scoop absorbed substance into closing containers.  
**Methods for cleaning up** Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Small quantities of liquid spill: Large Spills: contain released substance, pump into suitable containers. This material and its container must be disposed of in a safe way, and as per local legislation.  
**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

**6.4. Reference to other sections**

**Reference to other sections** See section 8 for more information. See section 13 for more information.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling** Avoid contact with skin. Avoid contact with eyes. Use personal protection equipment. Do not eat, drink or smoke when using this product. Use only with adequate ventilation. People suffering from perfume sensitivity should be cautious when using this product. Air Fresheners do not replace good hygiene practices.  
**General hygiene considerations** Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.

**7.2. Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep/store only in original container. Keep tightly closed in a dry and cool place.

**7.3. Specific end use(s)**

**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Exposure Limits**

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Benzyl Acetate	-	-	TWA: 10 ppm TWA: 62 mg/m <sup>3</sup>	-	-
Citral	-	-	TWA: 5 ppm TWA: 32 mg/m <sup>3</sup> *	-	-
Pinene	-	-	TWA: 20 ppm	-	-
Diphenyl Ether	STEL: 14 mg/m <sup>3</sup> STEL: 2 ppm TWA: 7 mg/m <sup>3</sup> TWA: 1 ppm	TWA: 1 ppm TWA: 7 mg/m <sup>3</sup> STEL 2 ppm STEL 14 mg/m <sup>3</sup>	TWA: 1 ppm TWA: 7 mg/m <sup>3</sup> STEL: 2 ppm STEL: 14 mg/m <sup>3</sup>	STEL: 14 mg/m <sup>3</sup> STEL: 2 ppm TWA: 7 mg/m <sup>3</sup> TWA: 1 ppm	TWA: 1 ppm TWA: 7 mg/m <sup>3</sup> STEL: 2 ppm STEL: 14 mg/m <sup>3</sup>
beta-Pinene	-	-	TWA: 20 ppm	-	-
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Benzyl Acetate	-	-	TWA: 10 ppm TWA: 61 mg/m <sup>3</sup>	-	-
Limonene	-	-	-	TWA: 25 ppm TWA: 150 mg/m <sup>3</sup> STEL: 50 ppm STEL: 300 mg/m <sup>3</sup>	TWA: 25 ppm TWA: 140 mg/m <sup>3</sup> STEL: 50 ppm STEL: 280 mg/m <sup>3</sup>
Pinene	-	-	-	TWA: 25 ppm TWA: 150 mg/m <sup>3</sup> STEL: 50 ppm STEL: 300 mg/m <sup>3</sup>	-
p-Cymene	-	-	TWA: 25 ppm TWA: 135 mg/m <sup>3</sup>	TWA: 25 ppm TWA: 140 mg/m <sup>3</sup> STEL: 35 ppm	-

				STEL: 190 mg/m <sup>3</sup>	
Diphenyl Ether	STEL: 14 mg/m <sup>3</sup> STEL: 2 ppm TWA: 7 mg/m <sup>3</sup> TWA: 1 ppm	TWA: 5 mg/m <sup>3</sup> Ceiling: 10 mg/m <sup>3</sup>	TWA: 1 ppm TWA: 7 mg/m <sup>3</sup>	TWA: 1 ppm TWA: 7 mg/m <sup>3</sup> STEL: 2 ppm STEL: 14 mg/m <sup>3</sup>	TWA: 1 ppm TWA: 7 mg/m <sup>3</sup> STEL: 2 ppm STEL: 14 mg/m <sup>3</sup>
Hexanal	-	-	-	-	STEL: 10 ppm STEL: 42 mg/m <sup>3</sup>
beta-Pinene	-	-	-	TWA: 25 ppm TWA: 150 mg/m <sup>3</sup> STEL: 50 ppm STEL: 300 mg/m <sup>3</sup>	-
<b>Chemical name</b>	<b>France</b>	<b>Germany</b>	<b>Germany DFG</b>	<b>Greece</b>	<b>Hungary</b>
Phenethyl Alcohol	-	-	*	-	-
Geraniol	-	-	skin sensitizer	-	-
Limonene	TWA: 1000 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup>	TWA: 5 ppm TWA: 28 mg/m <sup>3</sup> H*	TWA: 5 ppm TWA: 28 mg/m <sup>3</sup> Peak: 20 ppm Peak: 112 mg/m <sup>3</sup> * skin sensitizer	-	-
Terpinolene	TWA: 1000 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup>	-	-	-	-
Pinene	TWA: 1000 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup>	-	-	-	-
p-Cymene	TWA: 150 mg/m <sup>3</sup> TWA: 1000 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup>	-	-	-	-
Diphenyl Ether	TWA: 1 ppm TWA: 7 mg/m <sup>3</sup> STEL: 2 ppm STEL: 14 mg/m <sup>3</sup> *	TWA: 1 ppm TWA: 7.1 mg/m <sup>3</sup>	TWA: 1 ppm TWA: 7.1 mg/m <sup>3</sup> Peak: 1 ppm Peak: 7.1 mg/m <sup>3</sup>	TWA: 1 ppm TWA: 7 mg/m <sup>3</sup> STEL: 2 ppm STEL: 14 mg/m <sup>3</sup>	TWA: 7 mg/m <sup>3</sup> STEL: 14 mg/m <sup>3</sup>
Terpinene	TWA: 1000 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup>	-	-	-	-
Gamma-Terpinene	TWA: 1000 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup>	-	-	-	-
beta-Pinene	TWA: 1000 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup>	-	-	-	-
<b>Chemical name</b>	<b>Ireland</b>	<b>Italy</b>	<b>Italy REL</b>	<b>Latvia</b>	<b>Lithuania</b>
Benzyl Acetate	TWA: 10 ppm STEL: 30 ppm	-	TWA: 10 ppm TWA: 61 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>
Citral	TWA: 5 ppm STEL: 15 ppm	-	TWA: 5 ppm TWA: 31 mg/m <sup>3</sup> *	-	-
Limonene	-	-	-	-	Sensitizer TWA: 25 ppm TWA: 150 mg/m <sup>3</sup> STEL: 50 ppm STEL: 300 mg/m <sup>3</sup>
Pinene	-	-	TWA: 20 ppm TWA: 111 mg/m <sup>3</sup>	-	TWA: 25 ppm TWA: 150 mg/m <sup>3</sup> STEL: 50 ppm STEL: 300 mg/m <sup>3</sup>
p-Cymene	-	-	-	TWA: 10 mg/m <sup>3</sup>	TWA: 25 ppm TWA: 140 mg/m <sup>3</sup> STEL: 35 ppm STEL: 190 mg/m <sup>3</sup>
Diphenyl Ether	TWA: 1 ppm TWA: 7 mg/m <sup>3</sup> STEL: 2 ppm	TWA: 7 mg/m <sup>3</sup> TWA: 1 ppm	TWA: 1 ppm TWA: 7 mg/m <sup>3</sup> STEL: 2 ppm	TWA: 7 mg/m <sup>3</sup> TWA: 1 ppm STEL: 14 mg/m <sup>3</sup>	TWA: 7 mg/m <sup>3</sup> TWA: 1 ppm STEL: 14 mg/m <sup>3</sup>

	STEL: 14 mg/m <sup>3</sup>		STEL: 14 mg/m <sup>3</sup>	STEL: 2 ppm	STEL: 2 ppm
beta-Pinene	-	-	TWA: 20 ppm TWA: 111 mg/m <sup>3</sup>	-	TWA: 25 ppm TWA: 150 mg/m <sup>3</sup> STEL: 50 ppm STEL: 300 mg/m <sup>3</sup>
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Citral	-	-	-	-	STEL: 54 mg/m <sup>3</sup> TWA: 27 mg/m <sup>3</sup>
Limonene	-	-	-	TWA: 25 ppm TWA: 140 mg/m <sup>3</sup> STEL: 37.5 ppm STEL: 175 mg/m <sup>3</sup>	-
Pinene	-	-	-	TWA: 25 ppm TWA: 140 mg/m <sup>3</sup> STEL: 37.5 ppm STEL: 175 mg/m <sup>3</sup> H*	-
Diphenyl Ether	STEL: 14 mg/m <sup>3</sup> STEL: 2 ppm TWA: 7 mg/m <sup>3</sup> TWA: 1 ppm	STEL: 2 ppm STEL: 14 mg/m <sup>3</sup> TWA: 1 ppm TWA: 7 mg/m <sup>3</sup>	TWA: 7 mg/m <sup>3</sup> STEL: 14 mg/m <sup>3</sup>	TWA: 1 ppm TWA: 7 mg/m <sup>3</sup> STEL: 2 ppm STEL: 14 mg/m <sup>3</sup>	STEL: 14 mg/m <sup>3</sup> TWA: 7 mg/m <sup>3</sup>
Hexanal	-	-	-	-	STEL: 80 mg/m <sup>3</sup> TWA: 40 mg/m <sup>3</sup>
beta-Pinene	-	-	-	TWA: 25 ppm TWA: 140 mg/m <sup>3</sup> STEL: 37.5 ppm STEL: 175 mg/m <sup>3</sup>	-
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Benzyl Acetate	TWA: 10 ppm	TWA: 8 ppm TWA: 50 mg/m <sup>3</sup> STEL: 13 ppm STEL: 80 mg/m <sup>3</sup>	-	-	TWA: 10 ppm TWA: 62 mg/m <sup>3</sup>
Citral	TWA: 5 ppm P* Sensitizer	-	-	-	TWA: 5 ppm vía dérmica* sensitizer
Limonene	-	-	-	TWA: 28 mg/m <sup>3</sup> TWA: 5 ppm STEL: STEL ppm STEL: STEL mg/m <sup>3</sup> *	TWA: 30 ppm TWA: 168 mg/m <sup>3</sup> vía dérmica* sensitizer
Pinene	TWA: 20 ppm Sensitizer Turpentine and selected Monoterpenes	-	-	-	TWA: 20 ppm TWA: 113 mg/m <sup>3</sup> sensitizer
Diphenyl Ether	TWA: 1 ppm TWA: 7 mg/m <sup>3</sup> STEL: 2 ppm STEL: 14 mg/m <sup>3</sup>	TWA: 0.7 ppm TWA: 5 mg/m <sup>3</sup> TWA: 2 mg/m <sup>3</sup> STEL: 1.4 ppm STEL: 10 mg/m <sup>3</sup> STEL: 4 mg/m <sup>3</sup>	TWA: 1 ppm TWA: 7 mg/m <sup>3</sup> Ceiling: 7.1 mg/m <sup>3</sup>	TWA: 1 ppm TWA: 7 mg/m <sup>3</sup> STEL: STEL mg/m <sup>3</sup> STEL: STEL ppm	TWA: 1 ppm TWA: 7.1 mg/m <sup>3</sup> STEL: 2 ppm STEL: 14.2 mg/m <sup>3</sup>
beta-Pinene	TWA: 20 ppm Sensitizer Turpentine and selected Monoterpenes	-	-	-	TWA: 20 ppm TWA: 113 mg/m <sup>3</sup> sensitizer
Chemical name	Sweden	Switzerland	United Kingdom	Israel - Occupational Exposure Limits - TWAs	Turkey
Benzyl Acetate	-	-	-	10ppmTWA	-
Citral	-	-	-	5ppmTWA	-

Limonene	NGV: 25 ppm NGV: 150 mg/m <sup>3</sup> Sensitizer	TWA: 7 ppm TWA: 40 mg/m <sup>3</sup> STEL: 14 ppm STEL: 80 mg/m <sup>3</sup>	-	-	-
Pinene	NGV: 25 ppm NGV: 150 mg/m <sup>3</sup> Vägledande KGV: 50 ppm Vägledande KGV: 300 mg/m <sup>3</sup> Sensitizer	-	-	20ppmTWA	-
p-Cymene	NGV: 25 ppm NGV: 140 mg/m <sup>3</sup> Vägledande KGV: 35 ppm Vägledande KGV: 190 mg/m <sup>3</sup>	-	-	-	-
Diphenyl Ether	NGV: 1 ppm NGV: 7 mg/m <sup>3</sup> Bindande KGV: 2 ppm Bindande KGV: 14 mg/m <sup>3</sup>	TWA: 1 ppm TWA: 7 mg/m <sup>3</sup> STEL: 2 ppm STEL: 14 mg/m <sup>3</sup> STEL: 1 ppm STEL: 7 mg/m <sup>3</sup>	TWA: 1 ppm TWA: 7 mg/m <sup>3</sup> STEL: 2 ppm STEL: 14 mg/m <sup>3</sup>	1ppmTWA	-
beta-Pinene	NGV: 25 ppm NGV: 150 mg/m <sup>3</sup> Vägledande KGV: 50 ppm Vägledande KGV: 300 mg/m <sup>3</sup> Sensitizer	-	-	20ppmTWA	-

**Biological occupational exposure limits**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

**Derived No Effect Level (DNEL) Long term.**

Chemical name	Worker - dermal, long-term - systemic	Worker - inhalative, long-term - systemic	Worker - dermal, long-term - local	Worker - inhalative, long-term - local
Benzyl Acetate	2.5 mg/kg bw/day	0.009 mg/l	-	-
Tetrahydrolinalool	3.16 mg/kg bw/day	11.14 mg/m <sup>3</sup>	0.19 mg/cm <sup>2</sup>	-
Citral	1.7 mg/kg bw/day	9 mg/m <sup>3</sup>	0.14 mg/cm <sup>2</sup>	-
Phenethyl Alcohol	21.2 mg/kg bw/day	59.9 mg/m <sup>3</sup>	-	-
Citronellol	327.4 mg/kg bw/day	161.6 mg/m <sup>3</sup>	-	10 mg/m <sup>3</sup>
3,7-Dimethylnona-2,6-Dienenitril e	1.55 mg/kg bw/day	5.48 mg/m <sup>3</sup>	-	-
Linalyl Acetate	2.5 mg/kg bw/day	2.75 mg/m <sup>3</sup>	0.2362 mg/cm <sup>2</sup>	0.2362 mg/cm <sup>2</sup>
Geraniol	12.5 mg/kg bw/day	161.6 mg/m <sup>3</sup>	11.8 mg/cm <sup>2</sup>	-
Limonene	9.5 mg/kg bw/day	66.7 mg/m <sup>3</sup>	-	-
Eucalyptol	2 mg/kg bw/day	7.05 mg/m <sup>3</sup>	-	-
Allyl Caproate	4.3 mg/kg bw/day	15 mg/m <sup>3</sup>	-	-
Methylundecanal	10.46 mg/kg bw/day	36.89 mg/m <sup>3</sup>	35.7 mg/cm <sup>2</sup>	92.21 mg/m <sup>3</sup>
Decanal	7.05 mg/kg bw/day	24.86 mg/m <sup>3</sup>	17.62 mg/cm <sup>2</sup>	62.14 mg/m <sup>3</sup>
Dimethyl-3-Cyclohexene-1-Carb aldehyde	2.1 mg/kg bw/d	7.3 mg/m <sup>3</sup>	11630 mg/m <sup>2</sup>	-
Linalool	3.5 mg/kg bw/day	24.58 mg/m <sup>3</sup>	3 mg/cm <sup>2</sup>	-
Pinene	0.542 mg/kg bw/day	3.8 mg/m <sup>3</sup>	-	-
p-Cymene	0.25 mg/kg bw/day	0.00088 mg/L	-	-
Diphenyl Ether	25 mg/kg bw/day	0.059 mg/L	-	0.007 mg/L
Cyclamen Aldehyde	0.35 mg/kg bw/day	1.23 mg/m <sup>3</sup>	0.00743 mg/cm <sup>2</sup>	-

Terpinene	0.833 mg/kg bw/day	0.002939 mg/l	-	-
Tetramethylbicyclo-2-heptene-2-propionaldehyde	1.2 mg/kg bw/day	4.1 mg/m <sup>3</sup>	0.784 mg/cm <sup>2</sup>	-
Gamma-Terpinene	0.833 mg/kg bw/day	0.002939 mg/l	-	-
Dihydro Pentamethylindanone	0.42 mg/kg bw/d	1.47 mg/m <sup>3</sup>	5.51 mg/cm <sup>2</sup>	-
Undecanal	3.3 mg/kg bw/day	0.0235 mg/l	0.01 mg/l	10 mg/m <sup>3</sup>
Ethyl Methylphenylglycidate	5 mg/kg bw/day	17.63 mg/m <sup>3</sup>	12.5 mg/cm <sup>2</sup>	44.08 mg/m <sup>3</sup>
Lauraldehyde	14.1 mg/kg bw/d	49.7 mg/m <sup>3</sup>	0.00057 mg/cm <sup>2</sup>	-
Delta-Damascone	0.4 mg/kg bw/d	1.5 mg/m <sup>3</sup>	-	-
trans-Menthone	11.2 mg/kg bw/d	39.5 mg/m <sup>3</sup>	-	-
beta-Pinene	0.8 mg/kg bw/day	5.69 mg/m <sup>3</sup>	0.054 mg/cm <sup>2</sup>	-
Citronellal	1.7 mg/kg bw/d	9 mg/m <sup>3</sup>	0.14 mg/cm <sup>2</sup>	-
Anethole	3 mg/kg bw/day	10.6 mg/m <sup>3</sup>	-	-

Chemical name	Consumer - oral, long-term - local	Consumer - inhalative, long-term - local	Consumer - dermal, long-term - local
Tetrahydrolinalool	-	-	0.19 mg/cm <sup>2</sup>
Citral	-	-	0.14 mg/cm <sup>2</sup>
Citronellol	-	10 mg/m <sup>3</sup>	-
Linalyl Acetate	-	-	0.2362 mg/cm <sup>2</sup>
Geraniol	-	-	11.8 mg/cm <sup>2</sup>
Methylundecanal	-	22.74 mg/m <sup>3</sup>	17.86 mg/cm <sup>2</sup>
Decanal	-	15.32 mg/m <sup>3</sup>	8.81 mg/cm <sup>2</sup>
Dimethyl-3-Cyclohexene-1-Carbaldehyde	-	-	5820 mg/m <sup>2</sup>
Linalool	-	-	1.5 mg/cm <sup>2</sup>
Cyclamen Aldehyde	-	-	0.00372 mg/cm <sup>2</sup>
Tetramethylbicyclo-2-heptene-2-propionaldehyde	-	-	0,47 mg/cm <sup>2</sup>
Dihydro Pentamethylindanone	-	-	3.241 mg/cm <sup>2</sup>
Undecanal	-	0.005 mg/l	-
Ethyl Methylphenylglycidate	-	5.43 mg/m <sup>3</sup>	3.13 mg/cm <sup>2</sup>
Lauraldehyde	-	-	0.00028 mg/cm <sup>2</sup>
beta-Pinene	-	-	0.027 mg/cm <sup>2</sup>
Citronellal	-	-	0.14 mg/cm <sup>2</sup>

Chemical name	Consumer - oral, long-term - systemic	Consumer - inhalative, long-term - systemic	Consumer - dermal, long-term - systemic
Benzyl Acetate	1.3 mg/kg bw/day	0.022 mg/l	1.3 mg/kg bw/day
Tetrahydrolinalool	1.58 mg/kg bw/day	2.75 mg/m <sup>3</sup>	1.58 mg/kg bw/day
Citral	0.6 mg/kg bw/day	2.7 mg/m <sup>3</sup>	1 mg/kg bw/day
Phenethyl Alcohol	5.1 mg/kg bw/day	17.7 mg/m <sup>3</sup>	12.7 mg/kg bw/day
Citronellol	13.8 mg/kg bw/day	47.8 mg/m <sup>3</sup>	196.4 mg/kg bw/day
3,7-Dimethylnona-2,6-Dienenitrile	0.555 mg/kg bw/day	0.966 mg/m <sup>3</sup>	0.555 mg/kg bw/day
Linalyl Acetate	0.2 mg/kg bw/day	0.68 mg/m <sup>3</sup>	1.25 mg/kg bw/day
Geraniol	13.75 mg/kg bw/day	47.8 mg/m <sup>3</sup>	7.5 mg/kg bw/d
Limonene	4.8 mg/kg bw/day	16.6 mg/m <sup>3</sup>	4.8 mg/kg bw/day
Eucalyptol	600 mg/kg bw/day	1.74 mg/m <sup>3</sup>	1 mg/kg bw/day
Allyl Caproate	2.1 mg/kg bw/day	3.7 mg/m <sup>3</sup>	2.1 mg/kg bw/day
Methylundecanal	5.23 mg/kg bw/day	9.1 mg/m <sup>3</sup>	5.23 mg/kg bw/day
Decanal	3.52 mg/kg bw/day	6.13 mg/m <sup>3</sup>	3.52 mg/kg bw/day
Dimethyl-3-Cyclohexene-1-Carbaldehyde	1.3 mg/kg bw/d	2.2 mg/m <sup>3</sup>	1.3 mg/kg bw/d
Linalool	2.49 mg/kg bw/day	4.33 mg/m <sup>3</sup>	1.25 mg/kg bw/day
Pinene	0.225 mg/kg bw/day	0.674 mg/m <sup>3</sup>	0.225 mg/kg bw/day
p-Cymene	0.125 mg/kg bw/day	0.00022 mg/L	0.125 mg/kg bw/day
Cyclamen Aldehyde	0.13 mg/kg bw/day	0.22 mg/m <sup>3</sup>	0.13 mg/kg bw/day
Terpinene	0.417 mg/kg bw/day	0.000725 mg/l	0.417 mg/kg bw/day

Tetramethylbicyclo-2-heptene-2-propionaldehyde	0.7 mg/kg bw/day	1.2 mg/m <sup>3</sup>	0.7 mg/kg bw/day
Gamma-Terpinene	0.417 mg/kg bw/day	0.000725 mg/l	0.417 mg/kg bw/day
Dihydro Pentamethylindanone	0.25 mg/kg bw/d	0.44 mg/m <sup>3</sup>	0.25 mg/kg bw/d
Undecanal	1.7 mg/kg bw/day	0.0058 mg/L	1.7 mg/kg bw/day
Ethyl Methylphenylglycidate	1.25 mg/kg bw/day	2.17 mg/m <sup>3</sup>	1.25 mg/kg bw/day
Lauraldehyde	7 mg/kg bw/d	12.3 mg/m <sup>3</sup>	7 mg/kg bw/d
Delta-Damascone	0.25 mg/kg bw/d	1.5 mg/m <sup>3</sup>	0.4 mg/kg bw.d
trans-Menthone	4 mg/kg bw/d	5.92 mg/m <sup>3</sup>	4 mg/kg bw/d
beta-Pinene	0.3 mg/kg bw/day	1 mg/m <sup>3</sup>	0.3 mg/kg bw/day
Citronellal	0.6 mg/kg bw/d	2.7 mg/m <sup>3</sup>	1 mg/kg bw/d
Anethole	1.5 mg/kg bw/day	2.61 mg/m <sup>3</sup>	1.5 mg/kg bw/day

**Derived No Effect Level (DNEL)** Short term.

Chemical name	Worker - dermal, short-term - systemic	Worker - inhalative, short-term - systemic	Worker - dermal, short-term - local	Worker - inhalative, short-term - local
Tetrahydrolinalool	-	-	2.760 mg/cm <sup>2</sup>	-
Citral	-	-	-	0.14 mg/cm <sup>2</sup>
Citronellol	-	-	2.950 mg/cm <sup>2</sup>	2.95 mg/cm <sup>2</sup>
3,7-Dimethylnona-2,6-Dienenitrile	1.83 mg/kg bw/d	358.4 mg/m <sup>3</sup>	-	-
Linalyl Acetate	-	-	8 mg/cm <sup>2</sup>	-
Limonene	-	-	0.222 mg/cm <sup>2</sup>	-
Methylundecanal	100 mg/kg bw/day	352.63 mg/m <sup>3</sup>	100 mg/kg bw/day	71.43 mg/cm <sup>2</sup>
Decanal	14.1 mg/kg bw/day	49.71 mg/m <sup>3</sup>	14.1 mg/kg bw/day	35.24 mg/cm <sup>2</sup>
Linalool	-	16.5 mg/m <sup>3</sup>	15 mg/cm <sup>2</sup>	3 mg/cm <sup>2</sup>
Pinene	-	-	0.161 mg/cm <sup>2</sup>	-
Ethyl Methylphenylglycidate	10 mg/kg bw/day	35.26 mg/m <sup>3</sup>	10 mg/kg bw/day	25 mg/cm <sup>2</sup>
Delta-Damascone	-	-	0.014 mg/cm <sup>2</sup>	-

Chemical name	Consumer - inhalative, short-term - local	Consumer - dermal, short-term - local
Tetrahydrolinalool	-	2.760 mg/cm <sup>2</sup>
Citronellol	10 mg/m <sup>3</sup>	2.95 mg/cm <sup>2</sup>
Linalyl Acetate	-	236.2 mg/cm <sup>2</sup>
Limonene	-	0.111 mg/cm <sup>2</sup>
Methylundecanal	217.39 mg/m <sup>3</sup>	35.71 mg/cm <sup>2</sup>
Decanal	30.65 mg/m <sup>3</sup>	17.62 mg/cm <sup>2</sup>
Linalool	-	1.5 mg/cm <sup>2</sup>
Pinene	-	0.081 mg/cm <sup>2</sup>
Undecanal	0.005 mg/l	-
Ethyl Methylphenylglycidate	21.74 mg/m <sup>3</sup>	12.5 mg/cm <sup>2</sup>
Delta-Damascone	-	0.0086 mg/cm <sup>2</sup>

Chemical name	Consumer - oral, short-term - systemic	Consumer - inhalative, short-term - systemic	Consumer - dermal, short-term - systemic
Phenethyl Alcohol	5.1 mg/kg bw/day	-	-
3,7-Dimethylnona-2,6-Dienenitrile	0.2 mg/kg bw/d	201.6 mg/m <sup>3</sup>	0.58 mg/kg bw/d
Linalyl Acetate	-	-	8 mg/cm <sup>2</sup>
Methylundecanal	25 mg/kg bw/day	86.96 mg/m <sup>3</sup>	50 mg/kg bw/day
Decanal	7.05 mg/kg bw/day	12.26 mg/m <sup>3</sup>	7.05 mg/kg bw/day
Linalool	1.2 mg/kg bw/d	4.1 mg/m <sup>3</sup>	2.5 mg/kg bw/d
Ethyl Methylphenylglycidate	5 mg/kg bw/day	8.7 mg/m <sup>3</sup>	5 mg/kg bw/day

**Predicted No Effect Concentration (PNEC)** No information available.

Chemical name	Fresh Water	Marine water	Intermittent release
Benzyl Acetate	0.018 mg/L	0.002 mg/L	0.04 mg/L
Tetrahydrolinalool	0.009 mg/L	0.001 mg/L	0.089 mg/L

Citral	0.007 mg/L	0.001 mg/L	0.068 mg/L
Phenethyl Alcohol	0.215 mg/L	0.021 mg/L	2.15 mg/L
Citronellol	0.002 mg/L	0 mg/L	0.024 mg/L
2-T-Butylcyclohexyl Acetate	0.057 mg/L	0.006 mg/L	0.017 mg/L
3,7-Dimethylnona-2,6-Dienenitrile	0.002 mg/L	0 mg/L	0.024 mg/L
Linalyl Acetate	0.011 mg/L	0.001 mg/L	0.11 mg/L
Geraniol	0.011 mg/L	0.001 mg/L	0.108 mg/L
Limonene	0.014 mg/L	0.0014 mg/L	-
Eucalyptol	0.057 mg/L	0.0057 mg/L	0.57 mg/L
Allyl Caproate	0.000117 mg/L	.000012 mg/L	0.00117 mg/L
Methylundecanal	0.66 mg/L	0.000066 mg/L	0.0018 mg/L
Decanal	0.00117 mg/L	0.000117 mg/L	0.0117 mg/L
Dimethyl-3-Cyclohexene-1-Carbaldehyde	0.008 mg/L	0.001 mg/L	-
Linalool	0.2 mg/L	0.02 mg/L	2 mg/L
Pinene	0.000606 mg/L	0.000061 mg/L	0.00303 mg/L
p-Cymene	0.004 mg/L	0 mg/L	0.037 mg/L
Diphenyl Ether	0 mg/L	0 mg/L	0.005 mg/L
Cyclamen Aldehyde	0.0088 mg/L	0.00088 mg/L	0.014
Terpinene	0.002 mg/L	0 mg/L	0.017 mg/L
Tetramethylbicyclo-2-heptene-2-propionaldehyde	0.00051 mg/L	0.000051 mg/L	-
Gamma-Terpinene	0.003 mg/L	0 mg/L	-
Dihydro Pentamethylindanone	0.004 mg/L	0.0004 mg/L	-
Undecanal	0.00132 mg/L	0.000132 mg/L	0.00132 mg/L
Ethyl Methylphenylglycidate	0.008 mg/L	0.0084 mg/L	0.084 mg/L
Lauraldehyde	0.0035 mg/L	0.00035 mg/L	0.035 mg/L
trans-Menthone	0.0129 mg/L	0.00129 mg/L	0.129 mg/L
Delta-Damascone	0.007 mg/L	0.0007 mg/L	-
beta-Pinene	0.001004 mg/L	0.0001 mg/L	5.02
Citronellal	0.00868 mg/L	0.00087 mg/L	0.0868 mg/L
Anethole	0.00682 mg/L	0.000682 mg/L	0.0682 mg/L

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment plant	Soil	Air	Oral
Benzyl Acetate	0.526 mg/kg sediment dw	0.053 mg/kg sediment dw	8.55 mg/L	0.094 mg/kg soil dw	-	-
Tetrahydrolinalool	0.082 mg/kg sediment dw	0.008 mg/kg sediment dw	450 mg/L	0.011 mg/kg soil dw	-	-
Citral	0.125 mg/kg sediment dw	0.013 mg/kg sediment dw	1.6 mg/L	0.021 mg/kg soil dw	-	-
Phenethyl Alcohol	1.454 mg/kg sediment dw	0.145 mg/kg sediment dw	10 mg/L	0.164 mg/kg soil dw	-	-
Citronellol	0.026 mg/kg sediment dw	0.003 mg/kg sediment dw	580 mg/L	0.004 mg/kg soil dw	-	-
2-T-Butylcyclohexyl Acetate	7.62 mg/kg sediment dw	0.762 mg/kg sediment dw	10 mg/L	4.4 mg/kg soil dw	-	-
3,7-Dimethylnona-2,6-Dienitrile	0.248 mg/kg sediment dw	0.025 mg/kg sediment dw	0.9 mg/L	0.05 mg/kg soil dw	-	-
Linalyl Acetate	0.609 mg/kg sediment dw	0.061 mg/kg sediment dw	1 mg/L	0.115 mg/kg soil dw	-	-
Geraniol	0.115 mg/kg sediment dw	0.011 mg/kg sediment dw	0.7 mg/L	0.017 mg/kg soil dw	-	-
Limonene	3.85 mg/kg sediment dw	0.385 mg/kg sediment dw	1.8 mg/L	0.763 mg/kg soil dw	-	-
Eucalyptol	1.425 mg/kg sediment dw	0.142 mg/kg sediment dw	10 mg/L	0.25 mg/kg soil dw	-	-
Allyl Caproate	0.00446 mg/kg sediment dw	0.000446 mg/kg sediment dw	10 mg/L	0.000825 mg/kg soil dw	-	-

Methylundecanal	0.265 mg/kg sediment dw	0.0265 mg/kg sediment dw	10 mg/L	0.0526 mg/kg soil dw	-	-
Decanal	0.097 mg/kg sediment dw	0.01 mg/kg sediment dw	3.16 mg/L	0.019 mg/kg soil dw	-	-
Dimethyl-3-Cyclohexene-1- Carbaldehyde	0.152 mg/kg sediment dw	0.015 mg/kg sediment dw	13.8 mg/L	0.023 mg/kg soil dw	-	-
Linalool	2.22 mg/kg sediment dw	0.222 mg/kg sediment dw	10 mg/L	0.327 mg/kg soil dw	-	-
Pinene	0.157 mg/kg sediment dw	0.0157 mg/kg sediment dw	0.2 mg/L	0.0317 mg/kg soil dw	-	-
p-Cymene	1.52 mg/kg sediment dw	0.152 mg/kg sediment dw	10 mg/L	0.302 mg/kg soil dw	-	-
Diphenyl Ether	0.093 mg/kg sediment dw	0.009 mg/kg sediment dw	10 mg/L	0.018 mg/kg soil dw	-	-
Cyclamen Aldehyde	1.02 mg/kg sediment dw	0.102 mg/kg sediment dw	1 mg/L	0.199 mg/kg soil dw	-	-
Terpinene	0.196 mg/kg sediment dw	0.02 mg/kg sediment dw	10 mg/L	0.023 mg/kg soil dw	-	-
Tetramethylbicyclo-2-hepte ne-2-propionaldehyde	3.97 mg/kg sediment dw	0.4 mg/kg sediment dw	10 mg/L	2.13 mg/kg soil dw	-	-
Gamma-Terpinene	0.49 mg/kg sediment dw	0.049 mg/kg sediment dw	10 mg/L	0.423 mg/kg soil dw	-	-
Dihydro Pentamethylindanone	0.0991 mg/kg sediment dw	0.00991 mg/kg sediment dw	10 mg/L	0.0174 mg/kg soil dw	-	-
Undecanal	0.0969 mg/kg sediment dw	0.00969 mg/kg sediment dw	24.7 mg/L	0.01861 mg/kg soil dw	-	-
Ethyl Methylphenylglycidate	0.214 mg/kg sediment dw	0.021 mg/kg sediment dw	10 mg/L	0.038 mg/kg soil dw	-	-
Lauraldehyde	1.41 mg/kg sediment dw	0.141 mg/kg sediment dw	10 mg/L	0.278 mg/kg soil dw	-	-
trans-Menthone	0.129 mg/kg sediment dw	0.0129 mg/kg sediment dw	-	0.0182 mg/kg sediment dw	-	-
Delta-Damascone	0.906 mg/kg sediment dw	0.0906 mg/kg sediment dw	2.41 mg/L	0.177 mg/kg soil dw	-	-
beta-Pinene	0.337 mg/kg sediment dw	0.034 mg/kg sediment dw	3.26 mg/L	0.067 mg/kg soil dw	-	-
Citronellal	0.159 mg/kg sediment dw	0.0159 mg/kg sediment dw	4 mg/L	0.0267 mg/kg soil dw	-	-
Anethole	0.514 mg/kg sediment dw	0.0514 mg/kg sediment dw	0.972 mg/L	0.0988 mg/kg soil dw	-	-

## **8.2. Exposure controls**

### **Personal Protective Equipment**

#### **Eye/face protection**

Wear safety glasses with side shields (or goggles).

#### **Hand protection**

Wear suitable gloves.

#### **Skin and body protection**

Wear suitable protective clothing.

#### **Respiratory protection**

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

#### **General hygiene considerations**

Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.

#### **Environmental exposure controls**

Prevent that the undiluted product reaches surface waters.



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Color	clear
Odor	Pleasant (perfume)
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	No data available	Not available. This property is not relevant for the safety and classification of this product
Initial boiling point and boiling range	> 150 °C	
Flammability		Not applicable. This property is not relevant for liquid product forms
Flammability Limit in Air		Not available. This property is not relevant for the safety and classification of this product
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	> 60 °C	Closed cup
Autoignition temperature	No data available	Not available. This property is not relevant for the safety and classification of this product
Decomposition temperature	No Data Available	Not available. This property is not relevant for the safety and classification of this product
pH	No data available	Not available. This property is not relevant for the safety and classification of this product
Dynamic viscosity	0 - 150 cP	
Water solubility	Insoluble in water	
Solubility(ies)	No Data Available	Not available. This property is not relevant for the safety and classification of this product
Partition coefficient	No Data Available	Not available. This property is not relevant for the safety and classification of this product
Vapor pressure	No Data Available	Not available. This property is not relevant for the safety and classification of this product
Relative density	0.91 - 0.99	
Relative vapor density	No data available	Not available. This property is not relevant for the safety and classification of this product
Particle characteristics		Not available. This property is not relevant for the safety and classification of this product
Particle Size	No information available	
Particle Size Distribution	No information available	

### 9.2. Other information

9.2.1. Information with regard to physical hazard classes  
 No information available

9.2.2. Other safety characteristics  
 No information available

Evaporation rate	0.01 - 0.09
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	No information available.
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### 10.2. Chemical stability

**Stability** Stable under normal conditions.

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**10.3. Possibility of hazardous reactions**

**Possibility of hazardous reactions** None under normal processing.

**10.4. Conditions to avoid**

**Conditions to avoid** None known based on information supplied.

**10.5. Incompatible materials**

**Incompatible materials** None known based on information supplied.

**10.6. Hazardous decomposition products**

**Hazardous decomposition products** None known based on information supplied.

**SECTION 11: Toxicological information**

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

**Information on likely routes of exposure**

**Product Information**

**Inhalation** Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

**Eye contact** Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.

**Skin contact** May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Causes skin irritation.

**Ingestion** Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes.

**Numerical measures of toxicity**

**Acute toxicity**

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Benzyl Acetate	4999 mg/kg (rat)	5001 mg/kg (rabbit)	-
Tetrahydrolinalool	8270 mg/kg bw	> 5000 mg/kg bw	> 0.885 mg/L air
citral	6800 mg/kg (rat)	2001 mg/kg (rat)	-
Phenethyl Alcohol	1603.3 mg/kg (rat)	2535 mg/kg (rabbit)	21 mg/l (rat)
Citronellol	3450 mg/kg bodyweight (rat)	2650 mg/kg bodyweight (rabbit)	-
cis-2-tert-Butylcyclohexyl acetate	4600 mg/kg (rat)	5001 mg/kg (rabbit)	-

Lemonile	4900 mg/kg (rat)	5001 mg/kg (rat)	-
Linalyl Acetate	9001 mg/kg (rat)	5001 mg/kg (rat)	-
Geraniol	3600 mg/kg (rat)	5001 mg/kg (rabbit)	-
alpha-Terpineol	= 5170 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-
D-Limonene	5001 mg/kg (rat)	5001 mg/kg (rabbit)	-
Eucalyptol	4500 mg/kg (rat)	5001 mg/kg (rat)	-
Allyl Caproate	218 mg/kg (rat)	820 mg/kg (rabbit)	3 mg/l/4h (rat)
Undecanal, 2-methyl-	5001 mg/kg (rat)	8281 mg/kg (rabbit)	-
Decanal	= 3730 mg/kg ( Rat )	= 5040 mg/kg ( Rabbit )	-
trans-2-Hexenal	900 mg/kg (rat)	600 mg/kg (rabbit)	-
3-Cyclohexene-1-carboxaldehyde, dimethyl-	3901 mg/kg (rat)	5001 mg/kg (rabbit)	-
Terpinolene	= 4390 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-
Linalool	2790 mg/kg bodyweight (rat)	5610 mg/kg (rabbit)	21 mg/l/4h (rat)
alpha-Pinene	500 mg/kg (rat)	5001 mg/kg (rat)	-
p-Cymene	4750 mg/kg (rat)	5001 mg/kg (rabbit)	> 9.7 mg/L ( Rat ) 5 h
Diphenyl Ether	2830 mg/kg (rat)	> 7940 mg/kg ( Rabbit )	-
Cyclamen Aldehyde	4999 mg/kg (rat)	5001 mg/kg (rat)	-
alpha-Terpinene	1680 mg/kg (rat)	5001 mg/kg (rat)	-
alpha-Pinyl Isobutyraldehyde	5001 mg/kg (rat)	5001 mg/kg (rabbit)	-
gamma-Terpinene	5000 mg/kg (rat)	5001 mg/kg (rat)	-
Cashmeran	2900 mg/kg bodyweight (rat)	//	//
4,9-Decadienal, 4,8-dimethyl-	5001 mg/kg (rat)	-	-
Rose Oxide	= 4300 mg/kg ( Rat )	-	-
Undecanal	5001 mg/kg (rat)	5001 mg/kg (rabbit)	-
Ethyl Methylphenylglycidate	= 5470 mg/kg ( Rat )	5001 mg/kg (rat)	-
Hexanal	= 4890 mg/kg ( Rat )	> 8100 mg/kg ( Rabbit )	-
Dodecanal	//	//	//
Butanal, 4-(heptyloxy)-3-methyl-	5001 mg/kg (rat)	5001 mg/kg (rat)	21 mg/l (rat)
Satinone (Non-TSCA)	300 - 2000 mg/kg ( Rat )	-	-
Menthone/Isomenthone	500 mg/kg (rat)	5001 mg/kg (rabbit)	-
delta Damascone	1400 mg/kg (rat)	5001 mg/kg (rabbit)	-
beta-Pinene	> 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rabbit )	-
Citronellal	2500 mg/kg bodyweight (rat)	//	//
trans-Anethole	3070 mg/kg (rat)	> 4900 mg/kg bw (//EC 440/2008 B.3)	> 5.1 mg/L (OECD 403)
7,7,8,9,9-pentamethyl-6,6a,7,8,9,9a-hexahydro-5H-cyclopenta[h]quinazoline	300 - 2000 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	> 5.11 mg/L ( Rat ) 4 h
Tridecenonitrile	5001 mg/kg (rat)	5001 mg/kg (rat)	7 mg/l/4h (rat)

Chemical name	Carcinogenicity	Species	Eye Damage	Species	Developmental toxicity	Species	Mutagenicity	Species
Tetrahydrolinalool	-	-	Y	-	-	-	-	-
Citral	-	-	Y (OECD 405)	-	-	-	-	-
Phenethyl Alcohol	-	-	Y	-	-	-	-	-
Citronellol	-	-	Y (OECD 405)	-	-	-	-	-
Geraniol	-	-	Y (OECD 405)	-	-	-	-	-
Decanal	-	-	Y (EU Method B.5)	-	-	-	-	-

Chemical name	Carcinogenicity	Species	Eye Damage	Species	Developmental toxicity	Species	Mutagenicity	Species
trans-2-Hexanal	-	-	Y	-	-	-	-	-
Dimethyl-3-Cyclohexene-1-Carbaldehyde	-	-	Y (OECD 438)	-	-	-	-	-
Linalool	-	-	Y (OECD 405)	-	-	-	-	-
Diphenyl Ether	-	-	Y	-	-	-	-	-
Terpinene	-	-	Y	-	-	-	-	-
Dihydro Pentamethylindanone	-	-	Y (100%; OECD 438)	-	-	-	-	-
Lauraldehyde	-	-	Y (100%)	-	-	-	-	-
Citronellal	-	-	Y (100%; //OECD 405)	-	-	-	-	-
7,7,8,9,9-pentamethyl-6,6a,7,8,9,9a-hexahydro-5H-cyclopenta[h]quinazoline	-	-	Y (OECD 405)	-	-	-	-	-

Chemical name	Reproductive toxicity	Species	Skin corrosion/irritation	Species	Sensitization	Species
Tetrahydrolinalool	-	-	Y	-	-	-
Citral	-	-	Y	-	-	-
Phenethyl Alcohol	-	-	Y	-	-	-
Citronellol	-	-	Y (OECD 404)	-	-	-
2-T-Butylcyclohexyl Acetate	-	-	Y (OECD 404)	-	-	-
Linalyl Acetate	-	-	Y (OECD 404)	-	-	-
Geraniol	-	-	Y (OECD 404)	-	-	-
Limonene	-	-	Y (OECD 404)	-	-	-
Methylundecanal	-	-	Y	-	-	-
Decanal	-	-	Y (OECD 404)	-	-	-
trans-2-Hexanal	-	-	Y	-	-	-
Dimethyl-3-Cyclohexene-1-Carbaldehyde	-	-	Y (OECD 404)	-	-	-
Linalool	-	-	Y (OECD 404)	-	-	-
Pinene	-	-	Y	-	-	-
p-Cymene	Y (OECD 422)	-	-	-	-	-
Cyclamen Aldehyde	-	-	Y	-	-	-
Gamma-Terpinene	Y (OECD 422)	-	-	-	-	-
4,8-Dimethyl-4,9-decadienal	-	-	Y (OECD 404)	-	-	-
Dihydro Pentamethylindanone	-	-	Y (100%; OECD 439)	-	-	-
Undecanal	-	-	Y (OECD 404)	-	-	-
Lauraldehyde	-	-	Y (100%)	-	-	-
4-(heptyloxy)-3-methylbutanal	-	-	Y (OECD 439)	-	-	-
trans-Menthone	-	-	Y	-	-	-
beta-Pinene	-	-	Y	-	-	-
Citronellal	-	-	Y (100%)	-	-	-
7,7,8,9,9-pentamethyl-6,6a,7,8,9,9a-hexahydro-5H-cyclopenta[h]quinazoline	-	-	Y (OECD 439)	-	-	-

Chemical name	Skin sensitization	Species	STOT - single exposure	Target Organs	Species	STOT - repeated exposure	Target Organs	Species	Aspiration hazard
Tetrahydrolinalool	Y (OECD 429)	-	-	-	-	-	-	-	-

Chemical name	Skin sensitization	Species	STOT - single exposure	Target Organs	Species	STOT - repeated exposure	Target Organs	Species	Aspiration hazard
Citral	Y (OECD 406)	-	-	-	-	-	-	-	-
Citronellol	Y (OECD 429)	-	-	-	-	-	-	-	-
Geraniol	Y (//OECD 429)	-	-	-	-	-	-	-	-
Limonene	Y (OECD 429)	-	-	-	-	-	-	-	-
Eucalyptol	Y (OECD 429)	-	-	-	-	-	-	-	-
Methylundecanal	Y (OECD 429)	-	-	-	-	-	-	-	-
trans-2-Hexanal	Y (OECD 429)	-	-	-	-	-	-	-	-
Dimethyl-3-Cyclohexene-1-Carbaldehyde	Y (OECD 429)	-	-	-	-	-	-	-	-
Linalool	Y (OECD 429)	-	-	-	-	-	-	-	-
Pinene	Y	-	-	-	-	-	-	-	-
Cyclamen Aldehyde	Y (OECD 429)	-	-	-	-	-	-	-	-
Terpinene	Y (OECD429)	-	-	-	-	-	-	-	-
Tetramethylbicyclo-2-heptene-2-propionaldehyde	Y (OECD 429)	-	-	-	-	-	-	-	-
4,8-Dimethyl-4,9-decadienal	Y (OECD 406)	-	-	-	-	-	-	-	-
Dihydro Pentamethylindanone	Y (OECD 429)	-	-	-	-	-	-	-	-
Ethyl Methylphenylglycidate	Y	-	-	-	-	-	-	-	-
Lauraldehyde	Y (OECD 429)	-	-	-	-	-	-	-	-
4-(heptyloxy)-3-methylbutanal	Y (OECD 429)	-	-	-	-	-	-	-	-
beta-Pinene	Y (OECD 429)	-	-	-	-	-	-	-	-
Anethole	Y (OECD 406)	-	-	-	-	-	-	-	-
7,7,8,9,9-pentamethyl-6,6a,7,8,9,9a-hexahydro-5H-cyclopenta[h]quinazoline	Y (OECD 429)	-	-	-	-	-	-	-	-
Tridec-2-Enenitrile	Y	-	-	-	-	-	-	-	-

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

- Skin corrosion/irritation**                      Irritating to skin.
- Serious eye damage/eye irritation**      Causes serious eye irritation.
- Respiratory or skin sensitization**        May cause an allergic skin reaction.
- Germ cell mutagenicity**                      No information available.
- Carcinogenicity**                                No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

## 11.2. Information on other hazards

### 11.2.1. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

### 11.2.2. Other information

Other adverse effects No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecotoxicity Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Benzyl Acetate	110 mg/L (OECD 201; Desmodesmus subspicatus; 72 h)	4 mg/L (Oryzias latipes; 96 h)	855 mg/L (OECD 209; activated sludge; 3 h)	17 mg/L (OECD 202; Daphnia magna; 48 h)
Tetrahydrolinalool	21.6 mg/L (Desmodesmus subspicatus; 72 h)	8.9 mg/L (OECD 203; Danio rerio; 96 h)	EC50: 1000 mg/L (Pseudomonas putida; 0.5 h)	14.2 mg/L (OECD 202; Daphnia magna; 48 h)
citral	103.8 mg/L (Desmodesmus subspicatus; 72 h)	6.78 mg/L (Leuciscus idus; 96 h)	160 mg/L (OECD 209; activated sludge, domestic; 0.5 h)	6.8 mg/L (Daphnia magna; 48 h)
Phenethyl Alcohol	1300 mg/L; (Desmodesmus subspicatus; 72 h)	> 215 - < 464 mg/L (Leuciscus idus; 96 h)	> 100 mg/L (OECD 209; activated sludge; 3 h)	287.17 mg/L (EU Method C.2; Daphnia magna; 48 h)
Citronellol	2.4 mg/L (72 h)	14.66 mg/L (German standard DIN 38 412, part L15.; Leuciscus idus; 96 h)	> 10000 mg/L (German standard, DIN 38412 Part 27; Pseudomonas putida; 0.5 h)	17.48 mg/L (EU Directive 79/831/EEC, Annex V, part C.; Daphnia magna; 48 h)
cis-2-tert-Butylcyclohexyl acetate	4.2 mg/L (OECD 201; Desmodesmus subspicatus; 72 h)	5.6 mg/L (EU Method C.1; Danio rerio; 96 h)	-	17 mg/L (EU Method C.2; Daphnia magna; 48 h)
Lemonile	3.6 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	2.4 mg/L (96 h)	90 mg/L (OECD 209; activated sludge of a predominantly domestic sewage; 3 h)	2.7 mg/L (OECD 202; Daphnia magna; 48 h)
Linalyl Acetate	1 mg/L (OECD 201; Desmodesmus subspicatus; 72 h)	11 mg/L (OECD 203; Cyprinus carpio; 96 h)	> 100 mg/L (OECD 209; activated sludge of a predominantly domestic sewage; 3 h)	59 mg/L (OECD 202; daphnia magna; static; 48 h)
Geraniol	13.1 mg/L (OECD 201; 72 h)	22 mg/L (OECD 203; 96 h)	70 mg/L (OECD 209; 3 h)	10.8 mg/L (OECD 202; 48 h)

	Desmodesmus subspicatus; 72 h)	Danio rerio; 96 h)	activated sludge, domestic; 0.5 h)	Daphnia magna; 48 h)
D-Limonene	0.32 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	0.72 mg/L (OECD 203; Pimephales promelas; 96 h)	EC50: 209 mg/L (OECD 209; activated sludge of a predominantly domestic sewage; 3 h)	0.307 mg/L (OECD 202; Daphnia magna; 48 h)
Eucalyptol	> 74 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	57 mg/L (OECD 203; Oncorhynchus mykiss; 96 h)	> 100 mg/L (OECD 209; activated sludge of a predominantly domestic sewage; 3 h)	> 100 mg/L (OECD 202; Daphnia magna; 48 h)
Allyl Caproate	> 4.6 mg/L (OECD 201; desmodesmus subspicatus; 72 h)	0.117 mg/L (OECD 203; danio rerio; 96 h)	-	2 mg/L (EU Method C.2; Daphnia magna; 48 h)
Undecanal, 2-methyl-	0.18 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	0.35 mg/L (OECD 203; Oncorhynchus mykiss; 96 h)	-	0.21 mg/L (OECD 202; Daphnia magna; 48 h)
Decanal	4.5 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	1.45 -1.75 mg/L (OECD 203; Oncorhynchus mykiss; 96 h)	70 mg/L (OECD 209; activated sludge of a predominantly domestic sewage; 3 h)	1.17 - 1.94 mg/L (OECD 202; daphnia magna; 48 h)
trans-2-Hexenal	8.16 mg/L (Pseudokirchnerella subcapitata; 72 h)	-	-	22.8 mg/L (Daphnia magna; 48 h)
3-Cyclohexene-1-carboxaldehyde, dimethyl-	-	-	436 mg/L (OECD 209; Activated sludge; 3 h)	-
Terpinolene	-	LC50: =0.805mg/L (96h, Danio rerio)	-	-
Linalool	156.7 mg/L (Desmodesmus subspicatus; 96 h)	27.8 mg/L (OECD 203; Oncorhynchus mykiss; 96 h)	> 100 mg/L (OECD 209; activated sludge; 3 h)	59 mg/L (OECD 202; Daphnia magna; 48 h)
alpha-Pinene	-	0.303 mg/L (OECD 203; Danio rerio; 96 h)	326 mg/L (OECD 209; 3 h)	0.475 mg/L (OECD 202; Daphnia magna; 48 h)
p-Cymene	4.03 mg/L (OECD 201; Scenedesmus capricornutum; 72 h)	48 mg/L (EPA OPPTS 850.1075; Cyprinodon variegatus; 96 h)	-	3.7 mg/L (OECD 202; Daphnia magna; 48 h)
Diphenyl Ether	0.455 mg/L (Raphidocelis subcapitata; 72 h)	4.2 mg/L (Oncorhynchus mykiss; 96 h)	101 mg/L (OECD 209; activated sludge; 3 h)	1.96 mg/L (Daphnia magna; 48 h)
Cyclamen Aldehyde	4.3 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	2.49 mg/L (96 h)	100 mg/L (OECD 209; activated sludge; 3 h)	1.4 mg/L (OECD 202; Daphnia magna; 48 h)
alpha-Terpinene	-	3.15 mg/L (OECD 203; Pimephales promelas; 96 h)	1001 mg/L (OECD 209; activated sludge of a predominantly domestic sewage; 3 h)	1.7 mg/L (OECD 202; Daphnia magna; 48 h)
alpha-Pinyl Isobutyraldehyde	0.7 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	1.5 mg/l (OECD 203; Cyprinus carpio; 96 h)	1001 mg/l (OECD 209; activated sludge; 3 h)	0.51 mg/l (OECD 202; Daphnia magna; 48 h)
gamma-Terpinene	10.9 mg/L (OECD 201; Scenedesmus capricornutum; 72 h)	2.792 mg/L (OECD 203; Danio rerio; 96 h)	1001 mg/L (OECD 209; activated sludge, domestic; 3 h)	10.189 mg/L (OECD 202; Daphnia magna; 48 h)
Cashmeran	10 mg/L (OECD 201; Desmodesmus subspicatus; 72 h)	2.12 mg/L (Oryzias latipes; 96 h)	> 1000 mg/L (OECD 209; 3 h)	1.5 mg/L (OECD 202; Daphnia magna; 48 h)
4,9-Decadienal, 4,8-dimethyl-	1.6 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	-	-	1.4 mg/L (OECD 202; Daphnia magna; 48 h)
Undecanal	0.132 mg/L (OECD 201; Raphidocelis subcapitata; 72 h)	1.97 mg/L (Actinopterygii; 96 h)	85.3 mg/L (OECD 209; activated sludge of a predominantly domestic sewage; 3 h)	1.459 mg/L (OECD 202; Daphnia magna; 48 h)
Ethyl	36 mg/L (OECD 201;	4.2 mg/L (OECD 203;	-	52 mg/L (OECD 202;

Methylphenylglycidate	Pseudokirchneriella subcapitata; 72 h)	Oncorhynchus mykiss; 96 h)		Daphnia magna; 48 h)
Hexanal	-	LC50: 12 - 16.5mg/L (96h, Pimephales promelas)	-	-
Dodecanal	> 0.048 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	2.6 mg/L (OECD 203; Oncorhynchus mykiss; 96 h)	> 16 mg/L (DIN 38412; Pseudomonas putida; 16 h)	> 0.48 mg/L (OECD 202; Daphnia magna; 48 h)
Butanal, 4-(heptyloxy)-3-methyl-	-	-	20 mg/L (OECD 209; activated sludge of a predominantly domestic sewage; 0.5 h)	-
Menthone/Isomenthone	-	13 mg/L (Pimephales promelas; 96 h)	-	12.905 mg/L (Daphnia magna; 48 h)
delta Damascone	-	0.97 mg/L(OECD 203; Oryzias latipes; 96h)	241 mg/L (OECD 209; 3 h)	-
beta-Pinene	0.826 mg/L (OECD 201; Pseudokirchneriella subcapitatacriteria; 48 h)	0.502 mg/L (OECD 203; Pimephales promelas; 96 h)	326 mg/L (OECD 209; activated sludge of a predominantly domestic sewage; 3 h)	1.248 mg/L (OECD 202; Daphnia magna; 48 h)
Citronellal	13.33 mg/L (DIN 38412; Desmodesmus subspicatus; 72 h)	22 mg/L (DIN 38 412; Leuciscus idus; 96 h)	-	8.7 mg/L (EC 440/2008 C.2; Daphnia magna; 48 h)
trans-Anethole	9.571 mg/L (Pseudokirchneriella subcapitata; 96 h)	7 mg/L (EU Method C.1; Danio rerio; 96 h)	97.2 mg/L (OECD 209; activated sludge; 3 h)	6.82 mg/L (Daphnia magna; 48 h)
7,7,8,9,9-pentamethyl-6,6a,7,8,9,9a-hexahydro-5H-cyclopenta[h]quinazoline	3.4 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	0.64 mg/L (OECD 203; Danio rerio; 96 h)	> 56 mg/L (OECD 209; activated sludge of a predominantly domestic sewage; 3 h)	1 mg/L (OECD 202; Daphnia magna; 48 h)
Tridecenonitrile	0.106 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	0.164 mg/L (OECD 203; Danio rerio; 96 h)	-	0.02 mg/L (Daphnia magna; 48 h)

### Chronic Toxicity

Chemical name	Toxicity to algae (NOEC or ECx)*	Toxicity to fish (NOEC or ECx)*	Toxicity to daphnia and other aquatic invertebrates (NOEC or ECx)*	Toxicity to Microorganisms (NOEC or ECx)*	Toxicity to other organisms
Benzyl Acetate	52 mg/L (OECD 201; Desmodesmus subspicatus; 3 d)	0.92 mg/L (Oryzias latipes; 28 d)	10 mg/L (OECD 202; Daphnia magna; 2 d)	-	-
Tetrahydrolinolool	9.5 mg/L (DIN 38 412, L9; Desmodesmus subspicatus; 3 d)	5 mg/L (OECD 203; Danio rerio; 4 d)	8.2 mg/L (OECD 202; Daphnia magna; 2 d)	EC10: 450 mg/L (DIN 38412-27; Pseudomonas putida; 0.5 h)	-
Citral	3 mg/L (DIN 38412 L9; Desmodesmus subspicatus; 3 d)	4.6 mg/L (Leuciscus idus; 4 d)	-	68 mg/L (OECD 209; 0.02083 d)	-
Phenethyl Alcohol	430 mg/L (DIN 38 412; Desmodesmus subspicatus; 3 d)	100 mg/L (Leuciscus idus; 4 d)	-	100 mg/L (OECD 209; activated sludge; 0.125 d)	-
Citronellol	1.1 mg/L (Scenedesmus subspicatus; 3 d)	4.6 mg/L (German standard DIN 38 412, part L15; Leuciscus idus; 4 d)	3.1 mg/L (EU Directive 79/831/EEC, Annex V, part C.; Daphnia magna; 2 d)	580 mg/L (DIN 38412, Part 27; Pseudomonas putida; 0.02083 d)	-
2-T-Butylcyclohexyl Acetate	0.57 mg/L (OECD 201; Desmodesmus subspicatus; 3 d)	0.8 mg/L (OECD 210; Pimephales promelas; 33 d)	-	100 mg/L (OECD 301 F; activated sludge of a predominantly domestic sewage; 61 d)	-
3,7-Dimethylnona-2,6-Dienitrile	1.1 mg/L (OECD 201; Pseudokirchneriella subcapitata; criteria:	-	1.2 mg/L (OECD 202; Daphnia magna; 2 d)	-	-



	growth rate; 4 d)				
Linalyl Acetate	13.1 mg/L (OECD 201; desmodesmus subspicatus; 72 h)	10 mg/L (Leuciscus idus; 4 d)	25 mg/L (OECD 202; daphnia magna; 2 d)	> 1000 mg/L (ISO 8192; 0.5 h)	-
Geraniol	1 mg/L (OECD 201; Desmodesmus subspicatus; 3 d)	10 mg/L (OECD 203; Danio rerio; 4 d)	-	13 mg/L (OECD 209; 0.5 h)	-
Limonene	50 mg/L (OECD 201; Desmodesmus subspicatus; 3 d)	0.19 - 0.059 mg/L (OECD 212; Pimephales promelas; 8 d)	-	18 mg/L (OECD 209; 0.125 d)	-
Eucalyptol	37 mg/L (OECD 201; Pseudokirchneriella subcapitata; 3 d)	32 mg/L (OECD 203; Oncorhynchus mykiss; 4 d)	100 mg/L (OECD 202; Daphnia magna; 2 d)	-	-
Allyl Caproate	0.158 mg/L (OECD 201; desmodesmus subspicatus; 3 d)	-	-	> 2 mg/plate (Staphylococcus aureus; 1 d)	-
Methylundecanal	0.089 mg/L (OECD 201; Pseudokirchneriella subcapitata; 3 d)	0.11 mg/L (OECD 203; Oncorhynchus mykiss; 4 d)	0.033 mg/L (OECD 211; Daphnia magna; 21 d)	100 mg/L (OECD 301F; activated sludge of a predominantly domestic sewage; 22 d)	-
Decanal	0.759 mg/L (OECD 201; Pseudokirchneriella subcapitata; 3 d)	-	0.588 mg/L (OECD 202; daphnia magna; 2 d)	31.6 mg/L (OECD 209; activated sludge of a predominantly domestic sewage; 0.125 d)	-
trans-2-Hexanal	-	-	11.9 mg/L (Daphnia magna; 2 d)	-	-
Linalool	54.3 mg/L (DIN 38412 L 9; Desmodesmus subspicatus; 4 d)	< 3.5 mg/L (OECD 203; Oncorhynchus mykiss; 4 d)	25 mg/L (OECD 202; Daphnia magna; 2 d)	> 100 mg/L (OECD 209; 0.125 d)	-
Pinene	-	-	-	38 mg/L (OECD 209; 3 h)	-
Diphenyl Ether	0.24 mg/L (Raphidocelis subcapitata; 3 d)	3.2 mg/L (Oncorhynchus mykiss; 4 d)	0.76 mg/L (Daphnia magna; 2 d)	-	-
Cyclamen Aldehyde	0.72 mg/L (OECD 201; Pseudokirchneriella subcapitata; 4 d)	-	0.71 mg/L (OECD 211; Daphnia magna; 21 d)	-	-
Terpinene	3.7 mg/L (OECD 201; Pseudokirchneriella subcapitata; 3 d)	1.050 mg/L (Similar to OECD 203; Pimephales promelas; 4 d)	0.97 mg/L (OECD 202; Daphnia magna; 2 d)	-	-
4,8-Dimethyl-4,9-decadienal	0.13 mg/L (OECD 201; Pseudokirchneriella subcapitata; 3 d)	-	-	-	-
Dihydro Pentamethylindanone	1.4 mg/L (OECD 201; Desmodesmus subspicatus; 3 d)	-	-	-	-
Undecanal	23.5 mg/L (OECD 201; Pseudokirchneriella subcapitata; 3 d)	-	-	55 mg/L (OECD 209; 0.125 d)	-
Ethyl Methylphenylglycidate	9.3 mg/L (OECD 201; Pseudokirchneriella subcapitata; 4 d)	3.2 mg/L (OECD 203; Oncorhynchus mykiss; 4 d)	-	-	-
4-(heptyloxy)-3-methylbutanal	0.47 mg/L (OECD 201; Pseudokirchneriella subcapitata; 3 d)	-	0.93 mg/L (OECD 202; Daphnia magna; 2 d)	1.47 mg/L (OECD 209; activated sludge of a predominantly domestic sewage; 0.02 d)	-
trans-Menthone	2.5 mg/L (OECD 201; Green algae; 3 d)	-	-	308 mg/L (Pseudomonas citronellolis DSM 50332; 21 d)	-
beta-Pinene	-	-	-	38 mg/L (OECD 209; 0.125 d)	-
Citronellal	4.52 mg/L (DIN 38412;	-	-	400 mg/L (ISO 8192;	-

	Desmodemus subspicatus; 3 d)			0.5 h)	
Anethole	-	0.34 - 2.18 mg/L (OECD 210; Danio rerio; 28 d)	1.05 mg/L (OECD 211; criteria: reproduction; 21 d)	-	-
7,7,8,9,9-pentamethyl-6,6a,7,8,9,9a-hexahydro-5H-cyclope nta[h]quinazoline	0.2 mg/L (OECD 201; Pseudokirchneriella subcapitata; 3 d)	-	0.56 mg/L (OECD 202; Daphnia magna; 2 d)	-	-

## 12.2. Persistence and degradability

### Persistence and degradability

Chemical name	Ready Biodegradation Test (OECD 301)	Abiotic Degradation Hydrolysis	Abiotic Degradation Photolysis	Biodegradation Other Tests
Benzyl Acetate - 140-11-4	100.9 %CO <sub>2</sub> ; OECD 301 B; 28 d	-	-	-
Tetrahydrolinalool - 78-69-3	60 - 70%O <sub>2</sub> ; OECD 301 F; 28 d	-	-	-
citral - 5392-40-5	> 90%O <sub>2</sub> ; EU Method C.4-D; 28 d	-	-	-
Phenethyl Alcohol - 60-12-8	106.3%; OECD 301 B; 28 d	-	-	-
Citronellol - 106-22-9	80 - 90% O <sub>2</sub> ; 28 d	-	-	-
cis-2-tert-Butylcyclohexyl acetate - 20298-69-5	43%O <sub>2</sub> ; OECD 301 F; 28 d	-	-	-
Lemonile - 61792-11-8	26% O <sub>2</sub> ; OECD 301 F; 28 d	-	-	-
Linalyl Acetate - 115-95-7	≥ 70 - ≤ 80O <sub>2</sub> ; OECD 301 F; 28 d	-	-	-
Geraniol - 106-24-1	90 - 100%; OECD 301 A; 3 d	-	-	-
D-Limonene - 5989-27-5	71.4%CO <sub>2</sub> ; OECD 301 B; 28 d	-	-	-
Eucalyptol - 470-82-6	82%CO <sub>2</sub> ; OECD 301 F; 28 d	-	-	-
Allyl Caproate - 123-68-2	70%; OECD 301 F; 28 d	-	-	-
Undecanal, 2-methyl- - 110-41-8	68%O <sub>2</sub> ; OECD 301 F; 22 d	-	-	-
Decanal - 112-31-2	78%O <sub>2</sub> ; OECD 302 C; 28 d	-	-	-
3-Cyclohexene-1-carboxaldehyde, dimethyl- - 27939-60-2	4%O <sub>2</sub> ; OECD 301 D; 28 d	-	-	-
Linalool - 78-70-6	64.2% O <sub>2</sub> ; OECD 301 D; 28 d	-	-	-
alpha-Pinene - 80-56-8	68%; OECD 301 D; O <sub>2</sub> ; 28 D; 10-day window criteria fulfilled	-	-	-
p-Cymene - 99-87-6	100% (OECD 301 C; 14 d)	-	-	-
Diphenyl Ether - 101-84-8	76%; O <sub>2</sub> consumption; 20 d	-	-	-
Cyclamen Aldehyde - 103-95-7	65.5% CO <sub>2</sub> ; OECD 301 B; 28 d	-	-	-
alpha-Terpinene - 99-86-5	40%; OECD 301 F; EU Method C.4-D and EPA OPPTS 835.3110; O <sub>2</sub> consumption; 28 d	-	-	-
alpha-Pinyl Isobutyraldehyde - 33885-52-8	5.8%CO <sub>2</sub> ; OECD 301 B; 28 d	-	-	-
gamma-Terpinene - 99-85-4	27%; EU Method C.4-D; O <sub>2</sub> ; 28 d	-	-	-
Cashmeran - 33704-61-9	0% O <sub>2</sub> ; //OECD 301 C; 28 d	-	-	-
4,9-Decadienal, 4,8-dimethyl- - 71077-31-1	84%O <sub>2</sub> ; OECD 301 D; 28 d	-	-	-
Ethyl Methylphenylglycidate - 77-83-8	53%O <sub>2</sub> ; OECD 301 F; 28 d	-	-	-
Undecanal - 112-44-7	65%; OECD 301 B; CO <sub>2</sub> ; 29 d)	-	-	-
Dodecanal - 112-54-9	73% O <sub>2</sub> ; OECD 301 F	-	-	-
Butanal, 4-(heptyloxy)-3-methyl- - 1093653-57-6	62%CO <sub>2</sub> - OECD 310- 28 d	-	-	-

Menthone/Isomenthone - 89-80-5	1.13%; 21 d	-	-	-
beta-Pinene - 127-91-3	76%O <sub>2</sub> ; OECD 301 D; 28 d	-	-	-
Citronellal - 106-23-0	83% CO <sub>2</sub> ; OECD 301 B; > 60% (10 d)	-	-	-
trans-Anethole - 4180-23-8	≥ 90.7% - ≤ 91.2%CO <sub>2</sub> ; OECD 301 B; 28 d	-	-	-
7,7,8,9,9-pentamethyl-6,6a,7,8,9,9a-hexahydro-5H-cyclopenta[h]quinazoline - 1392325-86-8	0% CO <sub>2</sub> (OECD 310 B; 28 d)	-	-	-
Tridecenonitrile - 22629-49-8	87% (OECD 301F; 28 d)	-	-	-

### 12.3. Bioaccumulative potential

#### Bioaccumulation

There is no data for this product.

#### Component Information

Chemical name	Partition coefficient
Benzyl Acetate	1.96
Tetrahydrolinalool	3.3 3.9 3.5 4.2 3.57 - 4.63
Citral	2.76
Phenethyl Alcohol	1.36
Citronellol	3.41
2-T-Butylcyclohexyl Acetate	4.8
3,7-Dimethylnona-2,6-Dienenitrile	3.2
Linalyl Acetate	3.9
Geraniol	2.6
Limonene	4.38
Eucalyptol	3.4
Allyl Caproate	3.191
Methylundecanal	4.9
Decanal	3.8
Dimethyl-3-Cyclohexene-1-Carbaldehyde	3.2
Linalool	2.9
Pinene	4.1
p-Cymene	4.8
Diphenyl Ether	4.21
Cyclamen Aldehyde	3.4
Terpinene	5.3
Tetramethylbicyclo-2-heptene-2-propionaldehyde	5.4
Gamma-Terpinene	5.4
Dihydro Pentamethylindanone	4.2
4,8-Dimethyl-4,9-decadienal	4.5
Isobutenyl Methyltetrahydropyran	3.3
Undecanal	4.47 3.84
Ethyl Methylphenylglycidate	2.4 2.8
Hexanal	2.3
Lauraldehyde	4.9
4-(heptyloxy)-3-methylbutanal	4.8
trans-Menthone	2.295 1.951 3.05
Citronellal	3.62
7,7,8,9,9-pentamethyl-6,6a,7,8,9,9a-hexahydro-5H-cyclopenta[h]quinazoline	>=4.1 - <=5.84

Chemical name	Octanol/water partition coefficient	Bioconcentration factor (BCF)
Benzyl Acetate	1.96	8
Tetrahydrolinalool	3.3 (OECD 107)	99.87 L/kg
Citral	2.76 (OECD 107)	-
Phenethyl Alcohol	0.8 (OECD 117)	-
Citronellol	3.41 (EU Method A.8)	82.59 L/kg
2-T-Butylcyclohexyl Acetate	4.8 (OECD 117)	156 L/kg (OECD 305)
3,7-Dimethylnona-2,6-Dienitrile	3.2 (OECD 117)	105 L/kg
Linalyl Acetate	3.9 (OECD 107)	174 L/kg
Geraniol	2.6 (OECD 117)	-
Limonene	4.38 (OECD 117)	864.8 L/kg
Eucalyptol	3.4 (OECD 117)	155 L/kg
Allyl Caproate	3.191 (OECD 107)	102.3 L/kg
Methylundecanal	4.9 (OECD 117)	2917 L/kg
Decanal	3.8 (OECD 117)	190 L/kg
trans-2-Hexanal	1.58	-
Dimethyl-3-Cyclohexene-1-Carbaldehyde	3 (OECD 117)	-
Linalool	2.9	-
Pinene	4.48	1233.1 L/kg
p-Cymene	4.8 (OECD 117; 20 °C)	-
Diphenyl Ether	4.21	200
Cyclamen Aldehyde	3.4 (OECD 117)	155 L/kg
Terpinene	5.3 (OECD 117)	-
Tetramethylbicyclo-2-heptene-2-propionaldehyde	5.4 (OECD 117)	< 27 (OECD 305)
Gamma-Terpinene	5.4 (OECD 117)	-
Dihydro Pentamethylindanone	4.2	-
4,8-Dimethyl-4,9-decadienal	4.5 (OECD 117)	-
Ethyl Methylphenylglycidate	2.4 - 2.8 (OECD 117)	-
Undecanal	4.4 (EPA OPPTS 830.7570)	-
Lauraldehyde	4.9	-
4-(heptyloxy)-3-methylbutanal	4.8 (OECD 117)	-
trans-Menthone	2.295	15
beta-Pinene	26610 (OECD 107)	1125 L/kg
Citronellal	3.62	-
Anethole	3.388 (EU Method A.8)	79.92 L/kg (OECD 305)
7,7,8,9,9-pentamethyl-6,6a,7,8,9,9a-hexahydro-5H-cyclopenta[h]quinazoline	5.43	-
Tridec-2-Enitrile	> 6	-

#### 12.4. Mobility in soil

Mobility in soil No information available.

Chemical name	log Koc
Benzyl Acetate	250
Tetrahydrolinalool	56.3
Citral	147.7
Phenethyl Alcohol	31.6
Citronellol	70.79
2-T-Butylcyclohexyl Acetate	1300 (OECD 121)
3,7-Dimethylnona-2,6-Dienitrile	1000 (EU Method C.19)
Linalyl Acetate	432.4 L/kg
Geraniol	70.79
Limonene	6324 L/kg
Eucalyptol	214 (OECD 121)
Methylundecanal	3981 (OECD 121)
Decanal	2.9
Dimethyl-3-Cyclohexene-1-Carbaldehyde	160 (OECD 121)
Pinene	7421 L/kg
p-Cymene	5011.87
Diphenyl Ether	1968
Cyclamen Aldehyde	3.05 (OECD 121)
Terpinene	1120 L/kg
Tetramethylbicyclo-2-heptene-2-propionaldehyde	4.07 (OECD 121)
Gamma-Terpinene	3.905
Dihydro Pentamethylindanone	200

Undecanal	2.84
Ethyl Methylphenylglycidate	550
Lauraldehyde	3981.07 (OECD 121)
4-(heptyloxy)-3-methylbutanal	2600 (OECD 121)
trans-Menthone	63.8
beta-Pinene	1020
Citronellal	147.7 (QSAR PCKOCWIN v1.66)
Anethole	3.39

### 12.5. Results of PBT and vPvB assessment

**PBT and vPvB assessment** No information available.

Chemical name	PBT and vPvB assessment
Benzyl Acetate	The substance is not PBT / vPvB
Tetrahydrolinalool	The substance is not PBT / vPvB
Citral	The substance is not PBT / vPvB
Phenethyl Alcohol	The substance is not PBT / vPvB
Citronellol	The substance is not PBT / vPvB
2-T-Butylcyclohexyl Acetate	The substance is not PBT / vPvB
3,7-Dimethylnona-2,6-Dienenitrile	The substance is not PBT / vPvB
Linalyl Acetate	The substance is not PBT / vPvB
Geraniol	The substance is not PBT / vPvB
Terpineol	The substance is not PBT / vPvB PBT assessment does not apply
Limonene	The substance is not PBT / vPvB PBT assessment does not apply
Eucalyptol	The substance is not PBT / vPvB PBT assessment does not apply
Allyl Caproate	The substance is not PBT / vPvB PBT assessment does not apply
Methylundecanal	The substance is not PBT / vPvB Further information relevant for the PBT assessment is necessary
Decanal	The substance is not PBT / vPvB
trans-2-Hexanal	PBT assessment does not apply
Dimethyl-3-Cyclohexene-1-Carbaldehyde	The substance is not PBT / vPvB
Terpinolene	The substance is not PBT / vPvB
Linalool	The substance is not PBT / vPvB
Pinene	The substance is not PBT / vPvB PBT assessment does not apply
p-Cymene	The substance is not PBT / vPvB
Diphenyl Ether	The substance is not PBT / vPvB
Cyclamen Aldehyde	The substance is not PBT / vPvB
Terpinene	The substance is not PBT / vPvB
Tetramethylbicyclo-2-heptene-2-propionaldehyde	The substance is not PBT / vPvB
Gamma-Terpinene	The substance is not PBT / vPvB
Dihydro Pentamethylindanone	The substance is not PBT / vPvB
Isobutenyl Methyltetrahydropyran	The substance is not PBT / vPvB
Undecanal	The substance is not PBT / vPvB
Ethyl Methylphenylglycidate	The substance is not PBT / vPvB
Hexanal	The substance is not PBT / vPvB
Lauraldehyde	The substance is not PBT / vPvB
trans-Menthone	The substance is not PBT / vPvB
beta-Pinene	The substance is not PBT / vPvB
Citronellal	The substance is not PBT / vPvB
Anethole	The substance is not PBT / vPvB
7,7,8,9,9-pentamethyl-6,6a,7,8,9,9a-hexahydro-5H-cyclopenta[h]quinazoline	The substance is not PBT / vPvB

### 12.6. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

**12.7. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Waste from residues/unused products**

The waste codes/waste designations below are in accordance with EWC. Waste must be delivered to an approved waste disposal company. Waste is to be kept separate from other types of waste until its disposal. Do not throw waste product into the sewer. Where possible recycling is preferred to disposal or incineration. Empty, uncleaned packaging need the same disposal considerations as filled packaging. For handling waste, see measures described in section 8. Dispose of in accordance with local regulations.

**Contaminated packaging**

Do not reuse empty containers.

**Waste codes / waste designations according to EWC / AVV**

20 01 29\* - detergents containing dangerous substances  
15 01 10\* - packaging containing residues of or contaminated by dangerous substances

**SECTION 14: Transport information**

**IATA**

**14.1 UN number or ID number**

UN3082

**14.2 UN proper shipping name**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(perfumery product)

**14.3 Transport hazard class(es)**

9

**14.4 Packing group**

III

**Description**

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(perfumery product), 9, III

**14.5 Environmental hazards**

Yes

**14.6 Special precautions for user**

**Special Provisions**

A97, A158, A197

**Note:**

The shipper is responsible for identifying any exemptions, including Limited Quantity, that may apply based on package size.

**IMDG**

**14.1 UN number or ID number**

UN3082

**14.2 UN proper shipping name**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(perfumery product)

**14.3 Transport hazard class(es)**

9

**14.4 Packing group**

III

**Description**

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(perfumery product), 9, III, Marine pollutant

**14.5 Environmental hazards**

Yes

**14.6 Special precautions for user**

**Special Provisions**

274, 335, 969

**EmS-No**

F-A, S-F

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

No information available

**Note:**

The shipper is responsible for identifying any exemptions, including Limited Quantity, that may apply based on package size.

**RID**

**14.1 UN number or ID number**

UN3082

**14.2 UN proper shipping name**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(perfumery product)

**14.3 Transport hazard class(es)**

9

**14.4 Packing group**

III

**Description**

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(perfumery product), 9, III

**14.5 Environmental hazards**

Yes

**14.6 Special precautions for user**

**Special Provisions** 274, 335, 375, 601  
**Classification code** M6

**ADR**

**14.1 UN number or ID number** UN3082  
**14.2 UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(perfumery product)  
**14.3 Transport hazard class(es)** 9  
**14.4 Packing group** III  
**Description** UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(perfumery product), 9, III  
**14.5 Environmental hazards** Yes  
**14.6 Special precautions for user**  
**Special Provisions** 274, 335, 601, 375  
**Classification code** M6  
**Tunnel restriction code** (-)

**ADN**

**14.1 UN number or ID number** UN3082  
**14.2 Extended proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(perfumery product)  
**Description** UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(perfumery product), 9, III  
**14.3 Transport hazard class(es)** 9  
**14.4 Packing group** III  
**14.5 Marine pollutant** Not regulated  
**Classification code** M6  
**Hazard label(s)** 9  
**Limited quantity (LQ)** 5 L  
**Equipment Requirements** PP

**SECTION 15: Regulatory information**

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

**National regulations**

**France**

**Occupational Illnesses (R-463-3, France)**

Chemical name	French RG number	Title
Limonene	RG 84	-

**Germany**

**Water hazard class (WGK)** obviously hazardous to water (WGK 2)

**Poland**

Announcement of the Speaker of the Sejm of the Republic of Poland of 13 April 2018 regarding the publication of a uniform text of the Act - Labor Code (Journal of Laws 2018, item 917, as amended). Announcement of the Speaker of the Sejm of the Republic of Poland of March 15, 2019 regarding the publication of a uniform text of the Act on Waste (Journal of Laws 2019 item 701, as amended). Regulation of the Minister of Development of 7 July 2016, repealing the Regulation on specific requirements for certain products due to their negative environmental impact (Journal of Laws of 2016, item 1099, as amended). Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 regarding the highest permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286 with subsequent amendments).

**European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

**Authorizations and/or restrictions on use:**

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Regulation (EC) No. 648/2004 (Detergents regulation) Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP] Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
Citral	75.	-
Geraniol	75.	-
Limonene	75.	-
Linalool	75.	-
Terpinene	75.	-

**Persistent Organic Pollutants**

Not applicable

**Dangerous substance category per Seveso Directive (2012/18/EU)**

E2 - Hazardous to the Aquatic Environment in Category Chronic 2

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not applicable

**EU - Plant Protection Products (1107/2009/EC)**

Chemical name	EU - Plant Protection Products (1107/2009/EC)
Geraniol - 106-24-1	Plant protection agent
D-Limonene - 5989-27-5	Plant protection agent
Eucalyptol - 470-82-6	Plant protection agent
alpha-Terpinene - 99-86-5	Plant protection agent
gamma-Terpinene - 99-85-4	Plant protection agent

**Biocidal Products Regulation (EU) No 528/2012 (BPR)**

**15.2. Chemical safety assessment**

**Chemical Safety Report**

No chemical safety assessment has been carried out for this mixture per REACH regulation.

**SECTION 16: Other information**

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Full text of H-Statements referred to under section 3**

- H226 - Flammable liquid and vapor
- 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
- H331 - Toxic if inhaled
- H361 - Suspected of damaging fertility or the unborn child
- H361f - Suspected of damaging fertility
- 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



**Legend**

SVHC: Substances of Very High Concern for Authorization:

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)  
Ceiling Maximum limit value \* Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Skin sensitization	Calculation method
Chronic aquatic toxicity	Calculation method

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**Further information** Salts listed in Section 3 without a REACH Registration number are exempt, based on Annex V.

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**