SAFETY DATA SHEET

This Safety Data Sheet (SDS) was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 (in particular as amended by Commission Regulation (EU) 2020/878 with respect to SDSs) and Regulation (EC) No. 1272/2008 (CLP)

Issuing Date: 12-Sep-2023 **Revision Date:** 12-Sep-2023 **Revision Number** 1

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

1.1. Product identifier

Product Identifier	C-20225003-002_RET_CLPR7_EUR
Product Name	Febreze Bathroom Air Freshener Cotton Fresh
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 P&G DCE bvba/sprl-Belgium Dist. Div., Temselaan 100, B-1853 Strombeek-Bever, Belgium (IE) 1800 535 119	Zobele Bulgaria Eood Plovdiv district, Industrial zone Rakovski warehouse 2 Bulgaria, +359 2 9154 409, E-mail: poison_centre@mail.orbitel.bg; http://www.pirogov.bg

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

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

2.2. Label elements

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 There are no substances contained at or above the regulated value for declaration of >0.1% that fall under the definition of confirmed endocrine disruptors of any EU regulation.

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)
(R)-p-Mentha-1,8-diene	5989-27-5	10 - 20	01-2119529223-47	227-813-5	Aquatic Acute 1(H400) Aquatic Chronic 3(H412) Asp. Tox. 1(H304) Flam. Liq. 3(H226) Skin Irrit. 2(H315) Skin Sens. 1B(H317)	-	-	-
Tetrahydrolinalool	78-69-3	5 - 10	01-2119454788-21	201-133-9	Eye Irrit. 2(H319) Skin Irrit. 2(H315) Skin Sens.	-	-	-

					1B(H317)			
Pentamethylheptenone	81786-74-5	5 - 10	01-2119980043-42	279-822-9 279-823-4 279-825-5 289-194-8 939-627-8	Skin Sens. 1B(H317) Aquatic Chronic 2(H411)	-	-	-
2-t-Butylcyclohexyl Acetate	88-41-5	5 - 10	01-2119970713-33	201-828-7	Aquatic Chronic 2(H411)	-	-	-
Vertenex	32210-23-4	5 - 10	01-2119976286-24	250-954-9	Skin Sens. 1B(H317)	-	-	-
Undecavertol	81782-77-6	1 - 5	01-2119983528-21	279-815-0	Aquatic Acute 1(H400) Aquatic Chronic 2(H411)	-	-	-
PPG-2 Methyl Ether	34590-94-8	1 - 5	01-2119450011-60	236-547-9 252-104-2	NC	-	-	-
2,6-Dimethyl-7-octen-2-ol	18479-58-8	1 - 5	01-2119457274-37	242-362-4	Eye Irrit. 2(H319) Skin Irrit. 2(H315)	-	-	-
3-(p-cumenyl)Propionaldehyde	7775-00-0	1 - 5	No data available	231-885-3	Aquatic Acute 1(H400) Skin Irrit. 2(H315) Skin Sens. 1B(H317)	-	-	-
Linalool	78-70-6	1 - 5	01-2119474016-42	201-134-4	Eye Irrit. 2(H319) Skin Irrit. 2(H315) Skin Sens. 1B(H317)	-	-	-
Geraniol	106-24-1	1 - 5	01-2119552430-49	203-377-1	Eye Dam. 1(H318) Skin Irrit. 2(H315) Skin Sens. 1(H317)	-	-	-
2,6-Dimethyloctan-2-ol	18479-57-7	1 - 5	01-2120756111-66	242-361-9	Skin Irrit. 2(H315)	-	-	-
Linalyl Acetate	115-95-7	1 - 5	01-2119454789-19	204-116-4	Skin Irrit. 2(H315) Skin Sens. 1B(H317)	-	-	-
Phenethyl Alcohol	60-12-8	1 - 5	01-2119963921-31	200-456-2	Acute Tox. 4 (Oral)(H302) Eye Irrit. 2(H319)	-	-	-
Nerol	106-25-2	1 - 5	01-2119983244-33	203-378-7	Eye Irrit. 2(H319) Skin Irrit. 2(H315) Skin Sens. 1B(H317)	-	-	-
.beta.-Methyl-3-(1-methylethyl)-benzenepropanal	125109-85-5	1 - 5	01-0000015936-60	412-050-4	Aquatic Chronic 2(H411)	-	-	-
Trimethylundecenal	141-13-9	1 - 5	No data available	205-460-8	Aquatic Acute 1(H400) Aquatic	-	-	-

					Chronic 1(H410) Skin Sens. 1B(H317)			
Isobutenyl Methyltetrahydropyran	16409-43-1	0 - 1	01-2119976300-42	221-217-9 225-017-2 240-457-5 618-036-6 618-038-7	Skin Irrit. 2(H315) Eye Irrit. 2(H319) Repr. 2(H361f)	-	-	-
Ethyl 2,2-Dimethylhydrocinnamal	67634-15-5	0 - 1	01-2120758796-34	266-818-7 266-819-2	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Aquatic Acute 1(H400) Aquatic Chronic 2(H411)	-	-	-
L-alpha-Pinene	7785-26-4	0 - 1	01-2119979519-16	232-077-3	Acute Tox. 4 (Oral)(H302) Aquatic Acute 1(H400) Aquatic Chronic 1(H410) Asp. Tox. 1(H304) Flam. Liq. 3(H226) Skin Irrit. 2(H315) Skin Sens. 1B(H317)	-	-	-
Melonal	106-72-9	0 - 1	No data available	203-427-2	Skin Sens. 1B(H317)	-	-	-
2,4-Dimethyl-3-Cyclohexene Carboxaldehyde	68039-49-6	0 - 1	01-2119982384-28	268-264-1	Skin Irrit. 2(H315) Skin Sens. 1(H317) Aquatic Chronic 2(H411)	-	-	-
alpha-1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-2-buten-1-one	24720-09-0	0 - 1	No data available	245-845-8 246-430-4	Acute Tox. 4 (Oral)(H302) Aquatic Chronic 2(H411) Skin Sens. 1B(H317)	-	-	-
Allyl (cyclohexyloxy)Acetate	68901-15-5	0 - 1	No data available	272-657-3	Acute Tox. 4 (Oral)(H302) Aquatic Acute 1(H400) Aquatic Chronic 1(H410)	-	-	-
BHT	128-37-0	0 - 1	01-2119480433-40	204-881-4	Aquatic Acute 1(H400) Aquatic Chronic 1(H410)	-	-	-

Methyl-methylpentenylcyclohexene-1-carbaldehyde	52474-60-9	0 - 1	No data available	257-941-7 257-942-2 915-712-5	Aquatic Acute 1(H400) Aquatic Chronic 1(H410)	-	-	-
Rose Ketone-4	23696-85-7	0 - 1	No data available	245-833-2 245-844-2 630-462-4	Skin Irrit. 2(H315) Skin Sens. 1A(H317) Aquatic Chronic 2(H411)	-	-	-
Myrcene	123-35-3	0 - 1	01-2119514321-56	204-622-5	Aquatic Acute 1(H400) Aquatic Chronic 2(H411) Asp. Tox. 1(H304) Eye Irrit. 2(H319) Flam. Liq. 3(H226) Skin Irrit. 2(H315)	-	-	-
6,6-Dimethylbicyclo[3.1.1]hept-2-ene-2-Propionaldehyde	33885-51-7	0 - 1	No data available	251-717-2	Acute Tox. 4 (Oral)(H302) Aquatic Acute 1(H400) Aquatic Chronic 1(H410) Eye Irrit. 2(H319) Repr. 2(H361) Skin Irrit. 2(H315) Skin Sens. 1B(H317)	-	-	-
Citral	5392-40-5	0 - 1	01-2119462829-23	226-394-6	Eye Irrit. 2(H319) Skin Irrit. 2(H315) Skin Sens. 1(H317)	-	-	-
Citronellal	106-23-0	0 - 1	01-2119474900-37	203-376-6	Eye Irrit. 2(H319) Skin Irrit. 2(H315) Skin Sens. 1B(H317)	-	-	-
Methylundecanal	110-41-8	0 - 1	01-2119969443-29	203-765-0	Aquatic Acute 1(H400) Aquatic Chronic 1(H410) Skin Irrit. 2(H315) Skin Sens. 1B(H317)	-	-	-
delta Damascone	57378-68-4	0 - 1	01-2119535122-53	260-709-8 275-156-8	Acute Tox. 4 (Oral)(H302)	-	-	-

					Aquatic Acute 1(H400) Aquatic Chronic 1(H410) Skin Irrit. 2(H315) Skin Sens. 1A(H317)			

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

Acute Toxicity Estimate
No information available

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. (Call a physician if symptoms occur).

Eye contact 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.

Skin contact 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.

Ingestion IF SWALLOWED:. Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.

Self-protection of the first aider 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

Symptoms 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.

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

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical. Alcohol resistant foam. Carbon dioxide (CO2).

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical None in particular.

5.3. Advice for firefighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions 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.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

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
PPG-2 Methyl Ether	TWA: 50 ppm TWA: 308 mg/m³ *	TWA: 50 ppm TWA: 307 mg/m³ STEL 100 ppm STEL 614 mg/m³ H*	TWA: 50 ppm TWA: 308 mg/m³ *	TWA: 50 ppm TWA: 308.0 mg/m³ K*	TWA: 50 ppm TWA: 308 mg/m³ *
BHT	-	TWA: 10 mg/m³	TWA: 2 mg/m³	STEL: 50 mg/m³ TWA: 10 mg/m³	TWA: 10 mg/m³
Citral	-	-	TWA: 5 ppm TWA: 32 mg/m³ *	-	-
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
(R)-p-Mentha-1,8-diene	-	-	-	TWA: 25 ppm TWA: 150 mg/m³ STEL: 50 ppm STEL: 300 mg/m³	TWA: 25 ppm TWA: 140 mg/m³ STEL: 50 ppm STEL: 280 mg/m³
PPG-2 Methyl Ether	* TWA: 50 ppm TWA: 308 mg/m³	TWA: 270 mg/m³ Ceiling: 550 mg/m³ *	TWA: 50 ppm TWA: 309 mg/m³ H*	TWA: 50 ppm TWA: 308 mg/m³ A*	TWA: 50 ppm TWA: 310 mg/m³ iho*
BHT	-	-	TWA: 10 mg/m³	-	TWA: 10 mg/m³ STEL: 20 mg/m³
Chemical name	France	Germany	Germany DFG	Greece	Hungary

(R)-p-Mentha-1,8-diene	TWA: 1000 mg/m³ STEL: 1500 mg/m³	TWA: 5 ppm TWA: 28 mg/m³ H*	TWA: 5 ppm TWA: 28 mg/m³ Peak: 20 ppm Peak: 112 mg/m³ * skin sensitizer	-	-
PPG-2 Methyl Ether	TWA: 50 ppm TWA: 308 mg/m³ *	TWA: 50 ppm TWA: 310 mg/m³	TWA: 50 ppm TWA: 310 mg/m³ Peak: 50 ppm Peak: 310 mg/m³	TWA: 100 ppm TWA: 600 mg/m³ STEL: 150 ppm STEL: 900 mg/m³ skin - potential for cutaneous absorption	TWA: 308 mg/m³
Geraniol	-	-	skin sensitizer	-	-
Phenethyl Alcohol	-	-	*	-	-
L-alpha-Pinene	TWA: 1000 mg/m³ STEL: 1500 mg/m³	-	-	-	-
BHT	TWA: 10 mg/m³	TWA: 10 mg/m³	TWA: 10 mg/m³ Peak: 40 mg/m³	TWA: 10 mg/m³	-
Myrcene	TWA: 1000 mg/m³ STEL: 1500 mg/m³	-	-	-	-

Chemical name	Ireland	Italy	Italy REL	Latvia	Lithuania
(R)-p-Mentha-1,8-diene	-	-	-	-	Sensitizer TWA: 25 ppm TWA: 150 mg/m³ STEL: 50 ppm STEL: 300 mg/m³
PPG-2 Methyl Ether	TWA: 50 ppm TWA: 308 mg/m³ STEL: 150 ppm STEL: 924 mg/m³ Sk*	TWA: 50 ppm TWA: 308 mg/m³ pelle*	TWA: 100 ppm TWA: 606 mg/m³ STEL: 150 ppm STEL: 909 mg/m³ *	TWA: 50 ppm TWA: 308 mg/m³ *	* TWA: 300 mg/m³ TWA: 50 ppm STEL: 450 mg/m³ STEL: 75 ppm
BHT	TWA: 2 mg/m³ STEL: 6 mg/m³	-	TWA: 2 mg/m³	-	-
Citral	TWA: 5 ppm STEL: 15 ppm	-	TWA: 5 ppm TWA: 31 mg/m³ *	-	-

Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
(R)-p-Mentha-1,8-diene	-	-	-	TWA: 25 ppm TWA: 140 mg/m³ STEL: 37.5 ppm STEL: 175 mg/m³	-
PPG-2 Methyl Ether	* TWA: 308 mg/m³ TWA: 50 ppm	* TWA: 50 ppm TWA: 308 mg/m³	TWA: 300 mg/m³	TWA: 50 ppm TWA: 300 mg/m³ STEL: 75 ppm STEL: 375 mg/m³ H*	STEL: 480 mg/m³ TWA: 240 mg/m³ *
Myrcene	-	-	-	TWA: 40 ppm TWA: 275 mg/m³ STEL: 60 ppm STEL: 343.75 mg/m³	-
Citral	-	-	-	-	STEL: 54 mg/m³ TWA: 27 mg/m³

Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
(R)-p-Mentha-1,8-diene	-	-	-	TWA: 28 mg/m³ TWA: 5 ppm STEL: STEL ppm STEL: STEL mg/m³ *	TWA: 30 ppm TWA: 168 mg/m³ vía dérmica* sensitizer
PPG-2 Methyl Ether	TWA: 50 ppm TWA: 308 mg/m³ STEL: 150 ppm	TWA: 50 ppm TWA: 308 mg/m³ *	TWA: 50 ppm TWA: 308 mg/m³ *	TWA: 50 ppm TWA: 308 mg/m³ STEL: STEL ppm	TWA: 50 ppm TWA: 308 mg/m³ vía dérmica*

	P*			STEL: STEL mg/m³ *	
BHT	TWA: 2 mg/m³	-	-	TWA: 10 mg/m³ STEL: STEL mg/m³	TWA: 10 mg/m³
Myrcene	-	TWA: 700 mg/m³ STEL: 1000 mg/m³	-	-	-
Citral	TWA: 5 ppm P* Sensitizer	-	-	-	TWA: 5 ppm vía dérmica* sensitizer
Chemical name	Sweden	Switzerland	United Kingdom	Israel - Occupational Exposure Limits - TWAs	Turkey
(R)-p-Mentha-1,8-diene	NGV: 25 ppm NGV: 150 mg/m³ Sensitizer	TWA: 7 ppm TWA: 40 mg/m³ STEL: 14 ppm STEL: 80 mg/m³	-	-	-
PPG-2 Methyl Ether	NGV: 50 ppm NGV: 300 mg/m³ Vägledande KGV: 75 ppm Vägledande KGV: 450 mg/m³ *	TWA: 50 ppm TWA: 300 mg/m³ STEL: 50 ppm STEL: 300 mg/m³	TWA: 50 ppm TWA: 308 mg/m³ STEL: 150 ppm STEL: 924 mg/m³ Sk*	50ppmTWA	50ppmTWA 308mg/m³TWA
BHT	-	TWA: 10 mg/m³ STEL: 40 mg/m³	TWA: 10 mg/m³ STEL: 30 mg/m³	2mg/m³TWA	-
Citral	-	-	-	5ppmTWA	-

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
(R)-p-Mentha-1,8-diene	9.5 mg/kg bw/day	66.7 mg/m³	-	-
Tetrahydrolinalool	3.16 mg/kg bw/day	11.14 mg/m³	0.19 mg/cm2	-
Undecavertol	10 mg/kg bw/day	98.7 mg/m³	25 mg/cm2	88.16 mg/m³
PPG-2 Methyl Ether	283 mg/kg bw/day	308 mg/m³	-	-
2,6-Dimethyl-7-octen-2-ol	7 mg/kg bw/day	24.7 mg/m³	-	-
Linalool	3.5 mg/kg bw/day	24.58 mg/m³	3 mg/cm2	-
Geraniol	12.5 mg/kg bw/day	161.6 mg/m³	11.8 mg/cm2	-
Linalyl Acetate	2.5 mg/kg bw/day	2.75 mg/m³	0.236 mg/cm2	0.2362 mg/cm²
Phenethyl Alcohol	21.2 mg/kg bw/day	59.9 mg/m³	-	-
Nerol	1.25 mg/kg bw/day	4.4 mg/m³	0.133 mg/cm²	-
.beta.-Methyl-3-(1-methylethyl)-benzenepropanal	1.4 mg/kg bw/day	4.93 mg/m³	-	8.82 mg/m³
Trimethylundecenal	6.7 mg/kg bw/day	23.63 mg/m³	0.133 mg/cm2	59.07 mg/m³
L-alpha-Pinene	0.542 mg/kg bw/day	3.8 mg/m³	-	-
Melonal	2 mg/kg bw/day	7.05 mg/m³	141.67 mg/cm2	17.63 mg/m³
alpha-1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-2-buten-1-one	0.78 mg/kg bw/day	2.74 mg/m³	-	-
Allyl (cyclohexyloxy)Acetate	0.448 mg/kg bw/day	3.16 mg/m³	-	-
BHT	0.5 mg/kg bw/day	3.5 mg/m³	-	-
Myrcene	0.83 mg/kg bw/d	5.83 mg/m³	-	-
6,6-Dimethylbicyclo[3.1.1]hept-2-ene-2-Propionaldehyde	1 mg/kg bw/day	3.5 mg/m³	0.8 mg/cm2	-
Citral	1.7 mg/kg bw/day	9 mg/m³	0.14 mg/cm²	-
Citronellal	1.7 mg/kg bw/day	9 mg/m³	0.14 mg/cm2	-
Methylundecanal	10.46 mg/kg bw/day	36.89 mg/m³	35.7 mg/cm2	92.21 mg/m³
delta Damascone	0.4 mg/kg bw/day	1.5 mg/m³	0.014 mg/cm2	-

Chemical name	Consumer - oral, long-term - local	Consumer - inhalative, long-term - local	Consumer - dermal, long-term - local
Tetrahydrolinalool	-	-	0.19 mg/cm2
Undecavertol	-	21.74 mg/m³	12.5 mg/cm2
Linalool	-	-	1.5 mg/cm2
Geraniol	-	-	11.8 mg/cm2
Linalyl Acetate	-	-	0.236 mg/cm2
.beta.-Methyl-3-(1-methylethyl)-benzenepropanal	-	2.17 mg/m³	-
Trimethylundecenal	-	14.57 mg/m³	381 mg/cm2
Melonal	-	4.35 mg/m³	70.83 mg/cm2
6,6-Dimethylbicyclo[3.1.1]hept-2-ene-2-Propionaldehyde	-	-	0.48 mg/cm2
Citral	-	-	0.14 mg/cm2
Citronellal	-	-	0.14 mg/cm2
Methylundecanal	-	22.74 mg/m³	17.86 mg/cm2

Chemical name	Consumer - oral, long-term - systemic	Consumer - inhalative, long-term - systemic	Consumer - dermal, long-term - systemic
(R)-p-Mentha-1,8-diene	4.8 mg/kg bw	16.6 mg/m³	4.8 mg/kg bw/day
Tetrahydrolinalool	1.58 mg/kg bw	2.75 mg/m³	1.58 mg/kg bw/day
Undecavertol	10 mg/kg bw	14.38 mg/m³	0.089 mg/kg bw/day
PPG-2 Methyl Ether	36 mg/kg bw	37.2 mg/m³	121 mg/kg bw/day
2,6-Dimethyl-7-octen-2-ol	2.5 mg/kg bw	4.35 mg/m³	2.5 mg/kg bw/day
Linalool	2.49 mg/kg bw	4.33 mg/m³	1.25 mg/kg bw/day
Geraniol	13.75 mg/kg bw	47.8 mg/m³	7.5 mg/kg bw/d
Linalyl Acetate	0.2 mg/kg bw	0.68 mg/m³	1.25 mg/kg bw/day
Phenethyl Alcohol	5.1 mg/kg bw	17.7 mg/m³	12.7 mg/kg bw/day
Nerol	0.62 mg/kg bw	1.09 mg/m³	0.62 mg/kg bw/day
.beta.-Methyl-3-(1-methylethyl)-benzenepropanal	0.5 mg/kg bw	0.87 mg/m³	0.5 mg/kg bw/day
Trimethylundecenal	3.35 mg/kg bw	5.83 mg/m³	3.35 mg/kg bw/day
L-alpha-Pinene	0.225 mg/kg bw	0.674 mg/m³	0.225 mg/kg bw/day
Melonal	1 mg/kg bw	1.74 mg/m³	1 mg/kg bw/day
alpha-1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-2-buten-1-one	0.39 mg/kg bw	0.67 mg/m³	0.39 mg/kg bw/day
Allyl (cyclohexyloxy)Acetate	0.16 mg/kg bw	0.557 mg/m³	0.16 mg/kg bw/day
BHT	0.25 mg/kg bw/day	0.86 mg/m³	0.25 mg/kg bw/day
Myrcene	0.42 mg/kg bw/d	1.25 mg/m³	0.42 mg/kg bw/d
6,6-Dimethylbicyclo[3.1.1]hept-2-ene-2-Propionaldehyde	0.6 mg/kg bw	1.04 mg/m³	0.6 mg/kg bw/day
Citral	0.6 mg/kg bw	2.7 mg/m³	1 mg/kg bw/day
Citronellal	0.6 mg/kg bw	2.7 mg/m³	1 mg/kg bw/day
Methylundecanal	5.23 mg/kg bw	9.1 mg/m³	5.23 mg/kg bw/day
delta Damascone	0.25 mg/kg bw	0.43 mg/m³	0.25 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
(R)-p-Mentha-1,8-diene	-	-	0.222 mg/cm²	-
Tetrahydrolinalool	-	-	2.760 mg/cm²	-
Undecavertol	10 mg/kg bw/day	35.26 mg/m³	25 mg/cm2	88.16 mg/m³
Linalool	-	16.5 mg/m³	3 mg/cm2	3 mg/cm²
Linalyl Acetate	-	-	8 mg/cm²	-
.beta.-Methyl-3-(1-methylethyl)-benzenepropanal	6 mg/kg bw/day	21.16 mg/m³	6 mg/kg bw/d	52.89 mg/m³
Trimethylundecenal	160 mg/kg bw/day	23.63 mg/m³	1333.3 mg/cm2	59.07 mg/m³
Melonal	170 mg/kg bw/day	21.16 mg/m³	425 mg/cm2	52.89 mg/m³
Citral	-	-	0.14 mg/cm2	0.14 mg/cm²

Methylundecanal	100 mg/kg bw/day	352.63 mg/m³	71.43 mg/cm2	881.58 mg/m³
delta Damascone	-	-	0.014 mg/cm²	-

Chemical name	Consumer - inhalative, short-term - local	Consumer - dermal, short-term - local
(R)-p-Mentha-1,8-diene	-	0.111 mg/cm²
Tetrahydrolinalool	-	2.760 mg/cm²
Undecavertol	21.74 mg/m³	12.5 mg/cm2
Linalool	-	1.5 mg/cm2
Linalyl Acetate	-	236.2 mg/cm2
.beta.-Methyl-3-(1-methylethyl)-benzenepropanal	13.04 mg/m³	-
Trimethylundecenal	14.57 mg/m³	381 mg/cm2
Melonal	13.04 mg/m³	212.5 mg/cm2
Methylundecanal	217.39 mg/m³	35.71 mg/cm2
delta Damascone	-	0.009 mg/cm2

Chemical name	Consumer - oral, short-term - systemic	Consumer - inhalative, short-term - systemic	Consumer - dermal, short-term - systemic
Undecavertol	5 mg/kg bw	8.7 mg/m³	5 mg/kg bw/day
Linalool	1.2 mg/kg bw/d	4.1 mg/m³	2.5 mg/kg bw/d
Linalyl Acetate	-	-	8 mg/cm²
Phenethyl Alcohol	5.1 mg/kg bw	-	-
.beta.-Methyl-3-(1-methylethyl)-benzenepropanal	3 mg/kg bw	5.22 mg/m³	3 mg/kg bw/day
Trimethylundecenal	-	5.83 mg/m³	-
Melonal	85 mg/kg bw	5.22 mg/m³	85 mg/kg bw/day
Methylundecanal	25 mg/kg bw	86.96 mg/m³	50 mg/kg bw/day

Predicted No Effect Concentration (PNEC)

Chemical name	Fresh Water	Marine water	Intermittent release
(R)-p-Mentha-1,8-diene	0.014 mg/kg bw	0.001 mg/kg bw	-
Tetrahydrolinalool	0.009 mg/kg bw	0.001 mg/kg bw	0.089 mg/L
Vertenex	0.053 mg/kg bw	0.053 mg/kg bw	0.053 mg/L
PPG-2 Methyl Ether	19 mg/kg bw	1.9 mg/kg bw	190 mg/L
Undecavertol	0.001 mg/kg bw	0 mg/kg bw	0.004 mg/kg bw
2,6-Dimethyl-7-octen-2-ol	0.028 mg/kg bw	0.003 mg/kg bw	0.278 mg/L
Linalool	0.2 mg/kg bw	0.02 mg/kg bw	2 mg/L
Geraniol	0.011 mg/kg bw	0.001 mg/kg bw	0.108 mg/L
2,6-Dimethyloctan-2-ol	0.005 mg/kg bw	0 mg/kg bw	-
Linalyl Acetate	0.011 mg/kg bw	0.001 mg/kg bw	0.11 mg/L
Phenethyl Alcohol	0.215 mg/kg bw	0.021 mg/kg bw	2.15 mg/L
Nerol	0.008 mg/kg bw	0.001 mg/kg bw	0.075 mg/L
.beta.-Methyl-3-(1-methylethyl)-benzenepropanal	0.014 mg/kg bw	0.023 mg/kg bw	0.001 mg/L
Trimethylundecenal	0.001 mg/kg bw	0 mg/kg bw	0.006 mg/L
L-alpha-Pinene	0.001 mg/kg bw	0 mg/kg bw	0.003 mg/L
Melonal	0.002 mg/kg bw	0 mg/kg bw	0.023 mg/L
alpha-1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-2-buten-1-one	1090 mg/kg bw	110 mg/kg bw	10900 mg/L
Allyl (cyclohexyloxy)Acetate	0.002 mg/kg bw	0 mg/kg bw	0.002 mg/L
BHT	0.199 µg/L	0.0199 µg/L	1.99 µg/L
Myrcene	0.008 mg/L	0.0008 mg/L	-
6,6-Dimethylbicyclo[3.1.1]hept-2-ene-2-Propionaldehyde	0 mg/kg bw	0 mg/kg bw	-
Citral	0.007 mg/kg bw	0.001 mg/kg bw	0.068 mg/L
Citronellal	0.009 mg/kg bw	0.001 mg/kg bw	0.087 mg/L
Methylundecanal	0.66 mg/kg bw	0 mg/kg bw	0.002 mg/kg bw
delta Damascone	0.007 mg/kg bw	0.001 mg/kg bw	0.004 mg/L

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment plant	Soil	Air	Oral
(R)-p-Mentha-1,8-diene	3.85 mg/kg dwt	0.385 mg/kg dwt	1.8 mg/L	0.763 mg/kg dwt	-	-
Tetrahydrolinalool	0.082 mg/kg dwt	0.008 mg/kg dwt	450 mg/L	0.011 mg/kg dwt	-	-
Vertenex	2.01 mg/kg dwt	0.21 mg/kg dwt	12.2 mg/L	0.42 mg/kg dwt	-	-
PPG-2 Methyl Ether	70.2 mg/kg dwt	7.02 mg/kg dwt	4168 mg/L	2.74 mg/kg dwt	-	-
Undecavertol	0.092 mg/kg dwt	0.009 mg/kg dwt	10 mg/kg bw	0.018 mg/kg dwt	-	-
2,6-Dimethyl-7-octen-2-ol	0.594 mg/kg dwt	0.059 mg/kg dwt	10 mg/L	0.103 mg/kg dwt	-	-
Linalool	2.22 mg/kg dwt	0.222 mg/kg dwt	10 mg/L	0.327 mg/kg dwt	-	-
Geraniol	0.115 mg/kg dwt	0.011 mg/kg dwt	0.7 mg/L	0.017 mg/kg dwt	-	-
2,6-Dimethyloctan-2-ol	1.78 mg/kg dwt	0.178 mg/kg dwt	10 mg/L	0.354 mg/kg dwt	-	-
Linalyl Acetate	0.609 mg/kg dwt	0.061 mg/kg dwt	1 mg/L	0.115 mg/kg dwt	-	-
Phenethyl Alcohol	1.454 mg/kg dwt	0.145 mg/kg dwt	10 mg/L	0.164 mg/kg dwt	-	-
Nerol	0.133 mg/kg dwt	0.013 mg/kg dwt	12.9 mg/L	0.022 mg/kg dwt	-	-
.beta.-Methyl-3-(1-methylethyl)-benzenepropanal	1.1 mg/kg dwt	0.11 mg/kg dwt	3.2 mg/L	0.212 mg/kg dwt	-	-
Trimethylundecenal	0.427 mg/kg dwt	0.043 mg/kg dwt	10 mg/L	0.093 mg/kg dwt	-	-
L-alpha-Pinene	157000 mg/kg dwt	15700 mg/kg dwt	0.2 mg/L	31700 mg/kg dwt	-	-
Melonal	0.045 mg/kg dwt	0.004 mg/kg dwt	10 mg/L	0.021 mg/kg dwt	-	-
alpha-1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-2-buten-1-one	0.107 mg/kg dwt	0.011 mg/kg dwt	3.2 mg/L (3.2 mg/L)	0.021 mg/kg dwt	-	-
Allyl (cyclohexyloxy)Acetate	0.039 mg/kg dwt	0.004 mg/kg dwt	0.3 mg/L	0.375 mg/kg dwt	-	-
BHT	99.6 µg/kg sediment dw	9.96 µg/kg sediment dw	0.17 mg/L	47.69 µg/kg soil dw	-	-
Myrcene	5.022 mg/kg sediment dw	0.502 mg/kg sediment dw	0.2 mg/L	1.015 mg/kg soil dw	-	-
6,6-Dimethylbicyclo[3.1.1]hept-2-ene-2-Propionaldehyde	0.106 mg/kg dwt	0.011 mg/kg dwt	6.3 mg/L	0.978 mg/kg dwt	-	-
Citral	0.125 mg/kg dwt	0.013 mg/kg dwt	1.6 mg/L	0.021 mg/kg dwt	-	-
Citronellal	0.159 mg/kg dwt	0.016 mg/kg dwt	4 mg/L	0.027 mg/kg dwt	-	-
Methylundecanal	0.265 mg/kg dwt	0.027 mg/kg dwt	10 mg/kg bw	0.053 mg/kg dwt	-	-
delta Damascone	0.906 mg/kg dwt	0.091 mg/kg dwt	2.41 mg/L	0.177 mg/kg dwt	-	-

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	Not applicable

Property	Values	Remarks • Method
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

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity No information available.

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

No information available

Acute toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
(R)-p-Mentha-1,8-diene	5001 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
Tetrahydrolinalool	8270 mg/kg bw	> 5000 mg/kg bw	> 0.885 mg/L air
2-t-Butylcyclohexyl Acetate	= 4600 mg/kg (Rat)	-	-
Vertenex	3323 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
PPG-2 Methyl Ether	5001 mg/kg (RAT)	9510 mg/kg (RABBIT)	-
2,6-Dimethyl-7-octen-2-ol	3020 mg/kg (RAT)	> 5 g/kg (Rabbit)	-
3-(p-cumenyl)Propionaldehyde	5001 mg/kg (RAT)	-	-
Linalool	2790 mg/kg bodyweight (RAT)	5610 mg/kg (RABBIT)	21 mg/L (RAT)
Geraniol	3600 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
2,6-Dimethyloctan-2-ol	5001 mg/kg (RAT)	5001 mg/kg (RABBIT)	> 0.237 mg/L (Rat) 4 h > 21.7 mg/L (Rat) 6 h > 0.58 mg/L (Rat) 4 h
Linalyl Acetate	9001 mg/kg (RAT)	5001 mg/kg (RAT)	-
Phenethyl Alcohol	1603.3 mg/kg (RAT)	2535 mg/kg (RABBIT)	21 mg/L (RAT)
Nerol	4500 mg/kg (RAT)	5001 mg/kg (RABBIT)	-

.beta.-Methyl-3-(1-methylethyl)-benzenepropanal	5001 mg/kg (RAT)	5001 mg/kg (RAT)	-
Trimethylundecenal	5001 mg/kg (RAT)	-	-
Isobutenyl Methyltetrahydropyran	= 4300 mg/kg (Rat)	-	-
Ethyl 2,2-Dimethylhydrocinnamal	5001 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
L-alpha-Pinene	-	> 2000 mg/kg (Rat)	-
Melonal	5001 mg/kg (RAT)	5001 mg/kg (RAT)	-
2,4-Dimethyl-3-Cyclohexene Carboxaldehyde	-	5000 mg/kg (RABBIT)	-
alpha-1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-2-buten-1-one	1670 mg/kg (RAT)	2900 mg/kg (RAT)	-
Allyl (cyclohexyloxy)Acetate	621 mg/kg (RAT)	5001 mg/kg (RAT)	-
BHT	> 2930 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
Myrcene	> 5 g/kg (Rat)	5001 mg/kg (RABBIT)	-
6,6-Dimethylbicyclo[3.1.1]hept-2-ene-2-Propionaldehyde	1999 mg/kg (RAT)	-	-
Citral	6800 mg/kg (RAT)	2001 mg/kg (RAT)	-
Citronellal	2500 mg/kg bodyweight (RAT)	//	//
Methylundecanal	5001 mg/kg (RAT)	8281 mg/kg (RABBIT)	-
delta Damascone	1400 mg/kg (RAT)	5001 mg/kg (RABBIT)	-

Chemical name	Carcinogenicity	Species	Eye Damage	Species	Developmental toxicity	Species	Mutagenicity	Species
Tetrahydrolinalool	-	-	Y	-	-	-	-	-
Linalool	-	-	Y (OECD 405)	-	-	-	-	-
Geraniol	-	-	Y (OECD 405)	-	-	-	-	-
2,6-Dimethyloctan-2-ol	-	-	Y (OECD 438)	-	-	-	-	-
Phenethyl Alcohol	-	-	Y	-	-	-	-	-
Nerol	-	-	Y (OECD 405)	-	-	-	-	-
Myrcene	-	-	Y (OECD 405)	-	-	-	-	-
6,6-Dimethylbicyclo[3.1.1]hept-2-ene-2-Propionaldehyde	-	-	Y (OECD 438)	-	(60 mg/kg bw/day (OECD 422))	-	-	-
Citral	-	-	Y (OECD 405)	-	-	-	-	-
Citronellal	-	-	Y (100%; //OECD 405)	-	-	-	-	-

Chemical name	Reproductive toxicity	Species	Skin corrosion/irritation	Species	Sensitization	Species
(R)-p-Mentha-1,8-diene	-	-	Y (OECD 404)	-	-	-
Tetrahydrolinalool	-	-	Y	-	-	-
2,6-Dimethyl-7-octen-2-ol	-	-	Y	-	-	-
Linalool	-	-	Y (OECD 404)	-	-	-
Geraniol	-	-	Y (OECD 404)	-	-	-
2,6-Dimethyloctan-2-ol	-	-	Y (OECD 439)	-	-	-
Linalyl Acetate	-	-	Y (OECD 404)	-	-	-
Phenethyl Alcohol	-	-	Y	-	-	-
Nerol	-	-	Y (OECD 404)	-	-	-
Myrcene	-	-	Y	-	-	-
6,6-Dimethylbicyclo[3.1.1]hept-2-ene-2-Propionaldehyde	(Y (OECD 422))	-	Y (OECD 439)	-	-	-
Citral	-	-	Y	-	-	-
Citronellal	-	-	Y (100%)	-	-	-

Chemical name	Reproductive toxicity	Species	Skin corrosion/irritation	Species	Sensitization	Species
Methylundecanal	-	-	Y	-	-	-
delta Damascone	-	-	Y (EU Method B.46)	-	-	-

Chemical name	Skin sensitization	Species	STOT - single exposure	Target Organs	Species	STOT - repeated exposure	Target Organs	Species	Aspiration hazard
(R)-p-Mentha-1,8-diene	Y (OECD 429)	-	-	-	-	-	-	-	-
Tetrahydrolinalool	Y (OECD 429)	-	-	-	-	-	-	-	-
Vertenex	Y (OECD 429)	-	-	-	-	-	-	-	-
3-(p-cumenyl)Propionaldehyde	Y (OECD 429)	-	-	-	-	-	-	-	-
Linalool	Y (OECD 429)	-	-	-	-	-	-	-	-
Geraniol	Y (//OECD 429)	-	-	-	-	-	-	-	-
Nerol	Y (OECD 429)	-	-	-	-	-	-	-	-
Trimethylundecenal	Y (OECD 429)	-	-	-	-	-	-	-	-
L-alpha-Pinene	Y (OECD 429)	-	-	-	-	-	-	-	-
Melonal	Y (OECD 429)	-	-	-	-	-	-	-	-
alpha-1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-2-buten-1-one	Y (OECD 429)	-	-	-	-	-	-	-	-
6,6-Dimethylbicyclo[3.1.1]hept-2-ene-2-Propionaldehyde	Y (EPA OPPTS 870.2600)	-	-	-	-	-	-	-	-
Citral	Y (OECD 406)	-	-	-	-	-	-	-	-
Methylundecanal	Y (OECD 429)	-	-	-	-	-	-	-	-
delta Damascone	Y (OECD 429)	-	-	-	-	-	-	-	-

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 None known.

Carcinogenicity None known.

Reproductive toxicity None known.

STOT - single exposure None known.

STOT - repeated exposure None known.

Aspiration hazard Not applicable.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties There are no substances contained at or above the regulated value for declaration of >0.1% that fall under the definition of confirmed endocrine disruptors of any EU regulation.

11.2.2. Other information

Other adverse effects None known.

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
(R)-p-Mentha-1,8-diene	>= 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)
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)
Vertenex	>= 22 mg/L (EU Method C.3; Desmodesmus subspicatus; 72 h)	>= 8.6 mg/L (EU Method C.1; Cyprinus Carpio; semi-static; freshwater; criteria: mortality; 96 h)	>= 302 mg/L (EU Method C.11; activated sludge of a predominantly domestic sewage; 3 h)	>= 5.3 mg/L (OECD 202; Daphnia magna; 48 h)
Undecavertol	>= 3.6 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	>= 3 mg/L (OECD 203; Pimephales promelas; 96 h)	-	>= 0.4 mg/kg bw (OECD 202; Daphnia magna; 48 h)
PPG-2 Methyl Ether	>= 970 mg/L (OECD 201; Raphidocelis subcapitata; 72 h)	>= 1001 mg/L (OECD 203; Poecilia reticulata; 96 h)	-	>= 1001 mg/L (EPA OPP 72-3; Crangon crangon; 48 h)
2,6-Dimethyl-7-octen-2-ol	>= 80 mg/L (OECD 201; Desmodesmus subspicatus; 72 h)	>= 27.8 mg/L (OECD 203; Oncorhynchus mykiss; 96 h)	>= 101 mg/L (OECD 209; activated sludge; static; 3 h)	>= 38 mg/L (OECD 202; Daphnia magna; 48 h)
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)
Geraniol	>= 13.1 mg/L (OECD 201; Desmodesmus subspicatus; 72 h)	>= 22 mg/L (OECD 203; Danio rerio; 96 h)	>= 70 mg/L (OECD 209; activated sludge, domestic; 0.5 h)	>= 10.8 mg/L (OECD 202; Daphnia magna; 48 h)
2,6-Dimethyloctan-2-ol	>= 80 mg/L (OECD 201; Desmodesmus subspicatus; 72 h)	LC50: 3.6 - 5.1mg/L (96h, Lepomis macrochirus) LC50: 4.78 - 8.85mg/L (96h, Oncorhynchus mykiss)	>= 1000 mg/L (OECD 209; activated sludge; 0.5 h)	>= 43.7 mg/L (OECD 202; Daphnia magna; 48 h)

		LC50: =1.04mg/L (96h, Pimephales promelas) LC50: =1.8mg/L (96h, Oncorhynchus mykiss) LC50: =13mg/L (96h, Pimephales promelas) LC50: =5.7mg/L (96h, Pimephales promelas)		
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)
Phenethyl Alcohol	>= 1300 mg/L (Desmodesmus subspicatus; 72 h)	>= 215 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)
Nerol	>= 9.54 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	>= 20.3 mg/L (OECD 203; Danio rerio; 96 h)	(EC50: 241 mg/L (OECD 209; activated sludge of a predominantly domestic sewage; 3 h))	>= 32.4 mg/L (OECD 202; Daphnia magna; 48 h)
Trimethylundecenal	> 0.588 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	> 0.474 mg/L (OECD 203; Oncorhynchus mykiss; 96 h)	-	>= 0.9 mg/L (OECD 202; Daphnia magna; 48 h)
L-alpha-Pinene	-	>= 0.303 mg/L (OECD 203; Danio rerio; 96 h)	-	>= 0.475 mg/L (OECD 202; Daphnia magna; 48 h)
Melonal	>= 4.3 mg/L (Green algae; 96 h)	>= 2.288 mg/L (96 h)	-	>= 2.4 mg/L (OECD 202; Daphnia magna; 48 h)
alpha-1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-2-buten-1-one	>= 5 mg/L (OECD 201; algae species; 72 h)	>= 1.09 mg/L (Oryzias latipes; 96 h)	>= 275 mg/L (OECD 209; activated sludge; 3 h)	>= 2.37 mg/L (OECD 202; Daphnia magna; 48 h)
BHT	0.758 mg/L (QSAR calculation by ECOSAR v1.00a, EPA, green algae)	0.199 mg/L (QSAR calculation by ECOSAR v1.00a, EPA)	1.7 mg/L (growth inhibition, tetrahymena pyriformis, static)	0.48 mg/L (OECD 202, Daphnia magna, static)
Myrcene	> 100 mg/L (OECD 201; Pseudokirchneriella subcapitata; 48 h)	>= 1.3 mg/L (OECD 203; daphnia magna; 96 h)	-	>= 1.47 mg/L (OECD 202; daphnia magna; 48 h)
6,6-Dimethylbicyclo[3.1.1]hept-2-ene-2-Propionaldehyde	>= 4.2 mg/L (EU Method C.3; Pseudokirchneriella subcapitata; 72 h)	>= 1.5 mg/L (OECD 203; Cyprinus carpio; 96 h)	>= 1001 mg/L (EU Method C.11; activated sludge of a predominantly domestic sewage; 3 h)	>= 0.67 mg/L (EU Method C.2; 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)
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)
Methylundecanal	>= 0.18 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	>= 0.35 mg/L (OECD 203; Oncorhynchus mykiss; 96 h)	-	>= 0.21 mg/kg bw (OECD 202; Daphnia magna; 48 h)
delta Damascone	>= 4.54 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	>= 0.97 mg/L (OECD 203; Oryzias latipes; 96 h)	>= 241 mg/L (OECD 209; activated sludge; 3 h)	>= 1.18 mg/L (OECD 211; Daphnia magna; 21 d)

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
(R)-p-Mentha-1,8-diene	50 mg/L (OECD 201; Desmodesmus subspicatus; 3 d)	>= 0.19 mg/L (0.19 - 0.059 mg/L (OECD 212; Pimephales	-	(18 mg/L (OECD 209; 0.125 d))	-

		promelas; 8 d))			
Tetrahydrolinalool	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))	-
Vertenex	>= 6.8 mg/L (EU Method C.3; Desmodesmus subspicatus; 3 d)	-	-	-	-
PPG-2 Methyl Ether	>= 970 mg/L (OECD 201; Raphidocelis subcapitata; 3 d)	-	(&&)	(4168 mg/L (Pseudomonas putida; 0.75 d))	-
Undecavertol	>= 1.3 mg/kg bw (OECD 201; Pseudokirchneriella subcapitata; 4 d)	-	>= 0.025 mg/kg bw (OECD 211; Daphnia magna; 21 d)	(100 mg/L (activated sludge of a predominantly domestic sewage; 28 d))	-
2,6-Dimethyl-7-octen-2-ol	>= 25 mg/L (OECD 201; Desmodesmus subspicatus; 3 d)	>= 3.4 mg/L (OECD 203; Oncorhynchus mykiss; 4 d)	>= 9.5 mg/L (OECD 211; Daphnia magna; 21 d)	-	-
3-(p-cumenyl)Propionaldehyde	>= 2.3 mg/L (OECD 201; Pseudokirchneriella subcapitata; 3 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))	-
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))	-
2,6-Dimethyloctan-2-ol	>= 25 mg/L (OECD 201; Desmodesmus subspicatus; 3 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))	-
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))	-
Nerol	3.48 mg/L (OECD 201; Pseudokirchneriella subcapitata; 3 d)	-	-	-	-
L-alpha-Pinene	>= 0.131 mg/L (OECD 201; Pseudokirchneriella subcapitata; 2 d)	-	-	(2 mg/L (OECD 301D; 28 d))	-
Melonal	-	-	-	(100 mg/L (OECD 301F; activated sludge of a predominantly domestic sewage; 39 d))	-
alpha-1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-2-buten-1-one	-	-	-	(32 mg/L (OECD 209; activated sludge; 0.125 d))	-
Allyl (cyclohexyloxy)Acetate	>= 23.9 mg/L (OECD 201; Pseudokirchneriella subcapitata; 3 d)	-	>= 3.2 mg/L (OECD 211; Daphnia magna; 21 d)	(3 mg/L (EC 440/2008 C.4-E; domestic, non-adapted sewage sludge; 28 d))	-
Myrcene	> 100 mg/L (OECD 201; Pseudokirchneriella subcapitata; 2 d)	-	-	-	-
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))	-
Citronellal	>= 4.52 mg/L (DIN 38412; Desmodesmus subspicatus; 3 d)	-	-	(400 mg/L (ISO 8192; 0.5 h))	-
Methylundecanal	>= 0.089 mg/kg bw	>= 0.11 mg/kg bw	>= 0.033 mg/kg bw	(100 mg/L (OECD	-

	(OECD 201; Pseudokirchneriella subcapitata; 3 d)	(OECD 203; Oncorhynchus mykiss; 4 d)	(OECD 211; Daphnia magna; 21 d)	301F; activated sludge of a predominantly domestic sewage; 22 d))	
delta Damascone	>= 0.883 mg/L (OECD 201; Pseudokirchneriella subcapitata; 3 d)	-	>= 0.35 mg/L (OECD 211; Daphnia magna; 21 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
(R)-p-Mentha-1,8-diene	71.4 % (CO2; OECD 301 B; 28 d)	-	-	-
Tetrahydrolinalool	(60 - 70%O2; OECD 301 F; 28 d)	-	-	-
Vertenex	75 % (CO2; EU Method C.4-C; 29 d)	-	-	-
PPG-2 Methyl Ether	76 % (CO2; OECD 301 F; 28 d)	-	-	-
Undecavertol	73 % (O2; OECD 301 F; 28 d)	-	-	-
2,6-Dimethyl-7-octen-2-ol	72 % (CO2; OECD 301 B; 28 d)	-	-	-
3-(p-cumenyl)Propionaldehyde	71 % (O2; OECD 301 D; 28 d)	-	-	-
Linalool	64.2 % (O2; OECD 301 D; 28 d)	-	-	-
Geraniol	(OECD 301 A; 3 d)	-	-	-
2,6-Dimethyloctan-2-ol	72 % (O2; OECD 301 D; 28 d)	-	-	-
Linalyl Acetate	70 % (≥ 70 - ≤ 80O2; OECD 301 F; 28 d)	-	-	-
Phenethyl Alcohol	106.3 % (OECD 301 B; 28 d)	-	-	-
Nerol	90 % (; OECD 301 D; O2 consumption; 28 d; 14 day window fulfilled; 28 d)	-	-	-
.beta.-Methyl-3-(1-methylethyl)-benzenepropanal	79 % (O2; OECD 301 F; 62 d; 74)	-	-	-
Trimethylundecenal	84 % (O2; OECD 301 F; 28 d; 71)	-	-	-
L-alpha-Pinene	68 % (O2; OECD 301 D; > 60% (10d))	-	-	-
Melonal	75 % (O2; OECD 301 F; 28 d; 68)	-	-	-
alpha-1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-2-buten-1-one	56 % (O2; OECD 301 F; 28 d)	-	-	-
Allyl (cyclohexyloxy)Acetate	27.98 % (; OECD 301 D; 28 d)	-	-	-
BHT		-	-	5.2 % 14CO2
Myrcene	76 % (O2; OECD 301 D; 28 d)	-	-	-
6,6-Dimethylbicyclo[3.1.1]hept-2-ene-2-Propionaldehyde	14 % (; OECD 301 D; O2; 28 d)	-	-	-
Citral	90 % (O2; EU Method C.4-D; 28 d)	-	-	-
Citronellal	83 % (CO2; OECD 301 B; > 60% (10 d))	-	-	-
Methylundecanal	68 % (O2; OECD 301 F; 22 d)	-	-	-
delta Damascone	16 % (O2; OECD 301; 28 d)	332 d (OECD 111)	-	0% O2; 28 d; OECD 301 C

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
(R)-p-Mentha-1,8-diene	4.38
Tetrahydrolinalool	4.63
Vertenex	4.8
Undecavertol	3.9
PPG-2 Methyl Ether	0.35
2,6-Dimethyl-7-octen-2-ol	3.25
3-(p-cumenyl)Propionaldehyde	3.5
Linalool	2.9
Geraniol	2.6
2,6-Dimethyloctan-2-ol	4.63
Linalyl Acetate	3.9
Phenethyl Alcohol	1.36
Nerol	2.76
.beta.-Methyl-3-(1-methylethyl)-benzenepropanal	3.8
Trimethylundecenal	6.2
Isobutenyl Methyltetrahydropyran	3.3
L-alpha-Pinene	4.48
Melonal	3.4
alpha-1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-2-buten-1-one	3.66
Allyl (cyclohexyloxy)Acetate	2.8
BHT	5.1
Myrcene	4.82
6,6-Dimethylbicyclo[3.1.1]hept-2-ene-2-Propionaldehyde	4.3
Citral	2.76
Citronellal	3.62
Methylundecanal	4.9

Chemical name	Octanol/water partition coefficient	Bioconcentration factor (BCF)
(R)-p-Mentha-1,8-diene	4.38 (OECD 117)	864.8 L/kg
Tetrahydrolinalool	3.3 (OECD 107)	99.87 L/kg
Vertenex	4.8 (OECD 117)	334.6 L/kg
PPG-2 Methyl Ether	0.004	-
Undecavertol	3.9 (OECD 117)	123 - 387 L/kg
2,6-Dimethyl-7-octen-2-ol	3.25 (OECD 117)	64.8 L/kg
3-(p-cumenyl)Propionaldehyde	3.5 (OECD 117)	-
Linalool	2.9	-
Geraniol	2.6 (OECD 117)	-
2,6-Dimethyloctan-2-ol	3.2 (OECD 117)	104.7 L/kg ww
Linalyl Acetate	3.9 (OECD 107)	174 L/kg
Phenethyl Alcohol	0.8 (OECD 117)	-
Nerol	2.76 (EU Method A.8)	30.76 L/kg
.beta.-Methyl-3-(1-methylethyl)-benzenepropanal	3.1 (OECD 117)	-
Trimethylundecenal	6.2 (OECD 117)	-
L-alpha-Pinene	4.48	-
Melonal	3.4 (OECD 117)	-
alpha-1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-2-buten-1-one	3.66 (OECD 123; 25 °C)	> 8.4 - < 20 (OECD 305)
Allyl (cyclohexyloxy)Acetate	>= 1.04 - <= 1.04	-
BHT	5.1 (EPI-Suite, experimental database)	598.4 (Calculation by EPI-Suite, EPA (USA) / BCFWIN v2.17)
Myrcene	4.82 (OECD 117)	-
6,6-Dimethylbicyclo[3.1.1]hept-2-ene-2-Propionaldehyde	4.3	-
Citral	2.76 (OECD 107)	-
Citronellal	3.62	-
Methylundecanal	4.9 (OECD 117)	2917 L/kg

12.4. Mobility in soil

Mobility in soil

Chemical name	log Koc
(R)-p-Mentha-1,8-diene	6324
Tetrahydrolinalool	56.3 (56.3)
Vertenex	3243 (OECD 121)
Undecavertol	1175 (1175 (OECD 121))
2,6-Dimethyl-7-octen-2-ol	177.83 (177.83)
Geraniol	70.79 (70.79)
2,6-Dimethyloctan-2-ol	3760 (3760 (OECD 121))
Linalyl Acetate	432.4
Phenethyl Alcohol	31.6
Nerol	94.15 (94.15)
.beta.-Methyl-3-(1-methylethyl)-benzenepropanal	741 (OECD 121)
Trimethylundecenal	7244 (7244 (OECD 121))
Melonal	159 (159 (OECD121))
alpha-1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-2-buten-1-one	1397
Allyl (cyclohexyloxy)Acetate	152.71 (152.71)
Myrcene	1074 (QSAR KOCWIN v2.00)
6,6-Dimethylbicyclo[3.1.1]hept-2-ene-2-Propionaldehyde	3.19 (3.19 (EU Method C.19))
Citral	147.7 (147.7)
Citronellal	147.7 (QSAR PCKOCWIN v1.6)
Methylundecanal	3981 (3981 (OECD 121))
delta Damascone	1259 (1259 (OECD 121))

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

Chemical name	PBT and vPvB assessment
(R)-p-Mentha-1,8-diene	The substance is not PBT / vPvB
Tetrahydrolinalool	The substance is not PBT / vPvB
Vertenex	The substance is not PBT / vPvB
Undecavertol	The substance is not PBT / vPvB
PPG-2 Methyl Ether	The substance is not PBT / vPvB
2,6-Dimethyl-7-octen-2-ol	The substance is not PBT / vPvB
Linalool	The substance is not PBT / vPvB
Geraniol	The substance is not PBT / vPvB
2,6-Dimethyloctan-2-ol	The substance is not PBT / vPvB
Linalyl Acetate	The substance is not PBT / vPvB
Phenethyl Alcohol	The substance is not PBT / vPvB
Nerol	The substance is not PBT / vPvB
.beta.-Methyl-3-(1-methylethyl)-benzenepropanal	The substance is not PBT / vPvB
Trimethylundecenal	The substance is not PBT / vPvB
Isobutenyl Methyltetrahydropyran	The substance is not PBT / vPvB
L-alpha-Pinene	The substance is not PBT / vPvB
Melonal	The substance is not PBT / vPvB
alpha-1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-2-buten-1-one	The substance is not PBT / vPvB
Allyl (cyclohexyloxy)Acetate	The substance is not PBT / vPvB
BHT	The substance is not PBT / vPvB
Myrcene	The substance is not PBT / vPvB
6,6-Dimethylbicyclo[3.1.1]hept-2-ene-2-Propionaldehyde	The substance is not PBT / vPvB
Citral	The substance is not PBT / vPvB
Citronellal	The substance is not PBT / vPvB
Methylundecanal	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties There are no substances contained at or above the regulated value for declaration of >0.1% that fall under the definition of confirmed endocrine disruptors of any EU regulation.

12.7. Other adverse effects

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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. ((R)-p-Mentha-1,8-diene)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((R)-p-Mentha-1,8-diene), 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. ((R)-p-Mentha-1,8-diene)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((R)-p-Mentha-1,8-diene), 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. ((R)-p-Mentha-1,8-diene)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((R)-p-Mentha-1,8-diene), 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. ((R)-p-Mentha-1,8-diene)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((R)-p-Mentha-1,8-diene), 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. (Tetrahydrolinalool, Pentamethylheptenone)
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tetrahydrolinalool, Pentamethylheptenone), 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
(R)-p-Mentha-1,8-diene	RG 84	-
PPG-2 Methyl Ether	RG 84	-

Germany

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

Netherlands

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
(R)-p-Mentha-1,8-diene	75.	-
Linalool	75.	-
Geraniol	75.	-
Citral	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)
(R)-p-Mentha-1,8-diene	Plant protection agent
Geraniol	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
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
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
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