



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)

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Revision Number 1

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

1.1. Product identifier

Product Identifier 91961127_RET_CLPR7_EUR_SAW-90373562-91989996
Product Name Febreze 3Volution Cotton Fresh
Synonyms 91961127 (+90373562+91989996)/C-91961127-002 (+C-90373562-001+ C-91989996-001)
APP: C-90393339-001 / C-90414774-001
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 Energized & Continuous
Use category PC3 - Air care products

1.3. Details of the supplier of the safety data sheet

Supplier

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

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)
PPG-2 Methyl Ether	34590-94-8	>30	01-21194500 11-60	236-547-9 252-104-2	NC	-	-	-
2,6-Dimethyl-7-Octen-2-ol	18479-58-8	10 - 20	01-21194572 74-37	242-362-4	Skin Irrit. 2(H315) Eye Irrit. 2(H319)	-	-	-
Benzyl Acetate	140-11-4	5 - 10	01-21196382 72-42	205-399-7	Aquatic Chronic 3(H412)	-	-	-
Trimethylhexyl Acetate	58430-94-7	1 - 5	No data available	261-245-9	Skin Irrit. 2(H315) Aquatic Chronic 2(H411)	-	-	-
Linalool	78-70-6	1 - 5	01-21194740 16-42	201-134-4	Skin Irrit. 2(H315) Skin Sens. 1B(H317)	-	-	-

					Eye Irrit. 2(H319)			
Isobutyl Methyl Tetrahydropyranol	63500-71-0	1 - 5	01-21194555 47-30	405-040-6	Eye Irrit. 2(H319)	-	-	-
Hydroxycitronellal	107-75-5	1 - 5	01-21199734 82-31	203-518-7	Skin Sens. 1B(H317) Eye Irrit. 2(H319)	-	-	-
2-t-Butylcyclohexyl Acetate	88-41-5	1 - 5	01-21199707 13-33	201-828-7	Aquatic Chronic 2(H411)	-	-	-
Terpineol	8000-41-7	1 - 5	No data available	232-268-1	Skin Irrit. 2(H315) Eye Irrit. 2(H319)	-	-	-
Terpineol Acetate	8007-35-0	1 - 5	No data available	201-265-7 232-357-5 904-693-9	Aquatic Chronic 2(H411)	-	-	-
Tricyclodecenyl Propionate	68912-13-0	1 - 5	01-21199694 47-21	241-514-7 266-829-7 272-805-7	Aquatic Chronic 2(H411)	-	-	-
Limonene	5989-27-5	0 - 1	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)	-	-	-
Citral	5392-40-5	0 - 1	01-21194628 29-23	226-394-6	Skin Irrit. 2(H315) Skin Sens. 1(H317) Eye Irrit. 2(H319)	-	-	-
Geraniol	106-24-1	0 - 1	01-21195524 30-49	203-377-1	Skin Irrit. 2(H315) Eye Dam. 1(H318) Skin Sens. 1(H317)	-	-	-
Tetrahydrolinalool	78-69-3	0 - 1	01-21194547 88-21	201-133-9	Skin Irrit. 2(H315) Eye Irrit. 2(H319) Skin Sens. 1B(H317)	-	-	-
Citronellol	106-22-9	0 - 1	01-21194539 95-23	203-375-0	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Eye Irrit. 2(H319)	-	-	-
2,4-Dimethyl-3-Cycl ohexene Carboxaldehyde	68039-49-6	0 - 1	01-21199823 84-28	268-264-1	Skin Irrit. 2(H315) Skin Sens. 1(H317)	-	-	-

					Aquatic Chronic 2(H411)			
Cyclamen Aldehyde	103-95-7	0 - 1	01-21199705 82-32	203-161-7	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Aquatic Chronic 3(H412)	-	-	-
Alpha-Isomethyl Ionone	127-51-5	0 - 1	No data available	204-846-3	Skin Sens. 1B(H317) Aquatic Chronic 2(H411)	-	-	-
Dimethylcyclohexenyl 3-butenyl ketone	56973-85-4	0 - 1	No data available	260-486-7	Skin Sens. 1B(H317) Aquatic Chronic 2(H411)	-	-	-
Nerol	106-25-2	0 - 1	01-21199832 44-33	203-378-7	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Eye Irrit. 2(H319)	-	-	-
Linalyl Acetate	115-95-7	0 - 1	01-21194547 89-19	204-116-4	Skin Irrit. 2(H315) Skin Sens. 1B(H317)	-	-	-
3-(p-cumenyl)Propionaldehyde	7775-00-0	0 - 1	No data available	231-885-3	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Aquatic Acute 1(H400)	-	-	-
Isoeugenol	97-54-1	0 - 1	01-21202236 82-61	202-590-7 227-678-2	Acute Tox. 4 (Oral)(H302) Acute Tox. 4 (Dermal)(H312) Skin Irrit. 2(H315) Skin Sens. 1A(H317) Eye Irrit. 2(H319) Acute Tox. 4 (Inhalation:dust,mist)(H332) STOT SE 3(H335)	Skin Sens. 1A;H317 :: 0.01%<=C<100%	-	-
Ethyl 2,2-Dimethylhydrocinnamal	67634-15-5	0 - 1	01-21207587 96-34	266-818-7 266-819-2	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Aquatic Acute 1(H400) Aquatic Chronic 2(H411)	-	-	-

1-(3-Methyl-2-benzofuranyl)-ethanone	23911-56-0	0 - 1	01-00000175 40-77	429-100-6	Acute Tox. 4 (Oral)(H302) Aquatic Acute 1(H400) Aquatic Chronic 1(H410)	-	10	10
Undecenal	1337-83-3	0 - 1	No data available	215-656-5	Skin Sens. 1B(H317) Aquatic Acute 1(H400) Aquatic Chronic 2(H411)	-	10	10

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 $\geq 0.1\%$ (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.

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/m ³ *	TWA: 50 ppm TWA: 307 mg/m ³ STEL 100 ppm STEL 614 mg/m ³ H*	TWA: 50 ppm TWA: 308 mg/m ³ *	TWA: 50 ppm TWA: 308.0 mg/m ³ K*	TWA: 50 ppm TWA: 308 mg/m ³ *
Benzyl Acetate	-	-	TWA: 10 ppm TWA: 62 mg/m ³	-	-
Citral	-	-	TWA: 5 ppm TWA: 32 mg/m ³ *	-	-
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
PPG-2 Methyl Ether	* TWA: 50 ppm TWA: 308 mg/m ³	TWA: 270 mg/m ³ Ceiling: 550 mg/m ³ *	TWA: 50 ppm TWA: 309 mg/m ³ H*	TWA: 50 ppm TWA: 308 mg/m ³ A*	TWA: 50 ppm TWA: 310 mg/m ³ iho*
Benzyl Acetate	-	-	TWA: 10 ppm TWA: 61 mg/m ³	-	-

Limonene	-	-	-	TWA: 25 ppm TWA: 150 mg/m ³ STEL: 50 ppm STEL: 300 mg/m ³	TWA: 25 ppm TWA: 140 mg/m ³ STEL: 50 ppm STEL: 280 mg/m ³
Chemical name	France	Germany	Germany DFG	Greece	Hungary
PPG-2 Methyl Ether	TWA: 50 ppm TWA: 308 mg/m ³ *	TWA: 50 ppm TWA: 310 mg/m ³	TWA: 50 ppm TWA: 310 mg/m ³ Peak: 50 ppm Peak: 310 mg/m ³	TWA: 100 ppm TWA: 600 mg/m ³ STEL: 150 ppm STEL: 900 mg/m ³ skin - potential for cutaneous absorption	TWA: 308 mg/m ³
Hydroxycitronellal	-	-	skin sensitizer	-	-
Limonene	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	TWA: 5 ppm TWA: 28 mg/m ³ H*	TWA: 5 ppm TWA: 28 mg/m ³ Peak: 20 ppm Peak: 112 mg/m ³ *	-	-
Geraniol	-	-	skin sensitizer	-	-
Isoeugenol	-	-	skin sensitizer	-	-
Chemical name	Ireland	Italy	Italy REL	Latvia	Lithuania
PPG-2 Methyl Ether	TWA: 50 ppm TWA: 308 mg/m ³ STEL: 150 ppm STEL: 924 mg/m ³ Sk*	TWA: 50 ppm TWA: 308 mg/m ³ pelle*	TWA: 100 ppm TWA: 606 mg/m ³ STEL: 150 ppm STEL: 909 mg/m ³ *	TWA: 50 ppm TWA: 308 mg/m ³ *	TWA: 300 mg/m ³ TWA: 50 ppm STEL: 450 mg/m ³ STEL: 75 ppm *
Benzyl Acetate	TWA: 10 ppm STEL: 30 ppm	-	TWA: 10 ppm TWA: 61 mg/m ³	TWA: 5 mg/m ³	TWA: 5 mg/m ³
Limonene	-	-	-	-	Sensitizer TWA: 25 ppm TWA: 150 mg/m ³ STEL: 50 ppm STEL: 300 mg/m ³
Citral	TWA: 5 ppm STEL: 15 ppm	-	TWA: 5 ppm TWA: 31 mg/m ³ *	-	-
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
PPG-2 Methyl Ether	* TWA: 308 mg/m ³ TWA: 50 ppm	* TWA: 50 ppm TWA: 308 mg/m ³	TWA: 300 mg/m ³	TWA: 50 ppm TWA: 300 mg/m ³ STEL: 75 ppm STEL: 375 mg/m ³ H*	STEL: 480 mg/m ³ TWA: 240 mg/m ³ *
Limonene	-	-	-	TWA: 25 ppm TWA: 140 mg/m ³ STEL: 37.5 ppm STEL: 175 mg/m ³	-
Citral	-	-	-	-	STEL: 54 mg/m ³ TWA: 27 mg/m ³
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
PPG-2 Methyl Ether	TWA: 50 ppm TWA: 308 mg/m ³ STEL: 150 ppm P*	TWA: 50 ppm TWA: 308 mg/m ³ *	TWA: 50 ppm TWA: 308 mg/m ³ *	TWA: 50 ppm TWA: 308 mg/m ³ STEL: STEL ppm STEL: STEL mg/m ³ *	TWA: 50 ppm TWA: 308 mg/m ³ vía dérmica*
Benzyl Acetate	TWA: 10 ppm	TWA: 8 ppm TWA: 50 mg/m ³ STEL: 13 ppm STEL: 80 mg/m ³	-	-	TWA: 10 ppm TWA: 62 mg/m ³
Limonene	-	-	-	TWA: 28 mg/m ³ TWA: 5 ppm STEL: STEL ppm	TWA: 30 ppm TWA: 168 mg/m ³ vía dérmica*

				STEL: STEL mg/m ³ *	sensitizer
Citral	TWA: 5 ppm P* Sensitizer	-	-	-	TWA: 5 ppm via dérmica* sensitizer
Chemical name	Sweden	Switzerland	United Kingdom	Israel - Occupational Exposure Limits - TWAs	Turkey
PPG-2 Methyl Ether	NGV: 50 ppm NGV: 300 mg/m ³ Vägledande KGV: 75 ppm Vägledande KGV: 450 mg/m ³ *	TWA: 50 ppm TWA: 300 mg/m ³ STEL: 50 ppm STEL: 300 mg/m ³	TWA: 50 ppm TWA: 308 mg/m ³ STEL: 150 ppm STEL: 924 mg/m ³ Sk*	50ppmTWA	50ppmTWA 308mg/m ³ TWA
Benzyl Acetate	-	-	-	10ppmTWA	-
Limonene	NGV: 25 ppm NGV: 150 mg/m ³ Sensitizer	TWA: 7 ppm TWA: 40 mg/m ³ STEL: 14 ppm STEL: 80 mg/m ³	-	-	-
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
PPG-2 Methyl Ether	283 mg/kg bw/d	308 mg/m ³	-	-
2,6-Dimethyl-7-Octen-2-ol	7 mg/kg bw/day	0.0247 mg/l	-	-
Benzyl Acetate	2.5 mg/kg bw/day	0.009 mg/l	-	-
Linalool	3.5 mg/kg bw/day	24.58 mg/m ³	3 mg/cm ²	-
Hydroxycitronellal	1.9 mg/kg bw/day	18 mg/m ³	-	-
Terpineol	1.17 mg/kg bw/d	5.8 mg/m ³	-	-
Limonene	9.5 mg/kg bw/day	66.7 mg/m ³	-	-
Citral	1.7 mg/kg bw/day	9 mg/m ³	0.14 mg/cm ²	-
Geraniol	12.5 mg/kg bw/day	161.6 mg/m ³	11.8 mg/cm ²	-
Tetrahydrolinalool	3.16 mg/kg bw/day	11.14 mg/m ³	0.19 mg/cm ²	-
Citronellol	327.4 mg/kg bw/day	161.6 mg/m ³	-	10 mg/m ³
Cyclamen Aldehyde	0.35 mg/kg bw/day	1.23 mg/m ³	0.00743 mg/cm ²	-
Alpha-Isomethyl Ionone	0.375 mg/kg bw/day	8.22 mg/m ³	-	-
Dimethylcyclohexenyl 3-butenyl ketone	0.714 mg/kg bw/day	0.00252 mg/l	-	-
Nerol	1.25 mg/kg bw/day	4.4 mg/m ³	0.133 mg/cm ²	-
Linalyl Acetate	2.5 mg/kg bw/day	2.75 mg/m ³	0.2362 mg/cm ²	0.2362 mg/cm ²

Chemical name	Consumer - oral, long-term - local	Consumer - inhalative, long-term - local	Consumer - dermal, long-term - local
Linalool	-	-	1.5 mg/cm ²
Citral	-	-	0.14 mg/cm ²
Geraniol	-	-	11.8 mg/cm ²
Tetrahydrolinalool	-	-	0.19 mg/cm ²
Citronellol	-	10 mg/m ³	-
Cyclamen Aldehyde	-	-	0.00372 mg/cm ²
Linalyl Acetate	-	-	0.2362 mg/cm ²

Chemical name	Consumer - oral, long-term - systemic	Consumer - inhalative, long-term - systemic	Consumer - dermal, long-term - systemic
PPG-2 Methyl Ether	36 mg/kg bw/d	37.2 mg/m ³	121 mg/kg bw/d

2,6-Dimethyl-7-Octen-2-ol	2.5 mg/kg bw/day	0.00435 mg/l	2.5 mg/kg bw/day
Benzyl Acetate	1.3 mg/kg bw/day	0.022 mg/l	1.3 mg/kg bw/day
Linalool	2.49 mg/kg bw/day	4.33 mg/m ³	1.25 mg/kg bw/day
Hydroxycitronellal	0.6 mg/kg bw/day	5.4 mg/m ³	1.1 mg/kg bw/day
Terpineol	0.42 mg/kg bw/d	1.25 mg/m ³	0.42 mg/kg bw/d
Limonene	4.8 mg/kg bw/day	16.6 mg/m ³	4.8 mg/kg bw/day
Citral	0.6 mg/kg bw/day	2.7 mg/m ³	1 mg/kg bw/day
Geraniol	13.75 mg/kg bw/day	47.8 mg/m ³	7.5 mg/kg bw/d
Tetrahydrolinalool	1.58 mg/kg bw/day	2.75 mg/m ³	1.58 mg/kg bw/day
Citronellol	13.8 mg/kg bw/day	47.8 mg/m ³	196.4 mg/kg bw/day
Cyclamen Aldehyde	0.13 mg/kg bw/day	0.22 mg/m ³	0.13 mg/kg bw/day
Alpha-Isomethyl Ionone	0.0355 mg/kg bw/day	1.45 mg/m ³	0.0446 mg/kg bw/day
Dimethylcyclohexenyl 3-butenyl ketone	0.255 mg/kg bw/day	0.000377 mg/l	0.255 mg/kg bw/day
Nerol	0.62 mg/kg bw/day	1.09 mg/m ³	0.62 mg/kg bw/day
Linalyl Acetate	0.2 mg/kg bw/day	0.68 mg/m ³	1.25 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
Linalool	-	16.5 mg/m ³	15 mg/cm ²	3 mg/cm ²
Hydroxycitronellal	-	-	0.5 mg/cm ²	0.5 mg/cm ²
Limonene	-	-	0.222 mg/cm ²	-
Citral	-	-	-	0.14 mg/cm ²
Tetrahydrolinalool	-	-	2.760 mg/cm ²	-
Citronellol	-	-	2.950 mg/cm ²	2.95 mg/cm ²
Linalyl Acetate	-	-	8 mg/cm ²	-

Chemical name	Consumer - inhalative, short-term - local	Consumer - dermal, short-term - local
Linalool	-	1.5 mg/cm ²
Hydroxycitronellal	-	500 mg/cm ²
Limonene	-	0.111 mg/cm ²
Tetrahydrolinalool	-	2.760 mg/cm ²
Citronellol	10 mg/m ³	2.95 mg/cm ²
Linalyl Acetate	-	236.2 mg/cm ²

Chemical name	Consumer - oral, short-term - systemic	Consumer - inhalative, short-term - systemic	Consumer - dermal, short-term - systemic
Linalool	1.2 mg/kg bw/d	4.1 mg/m ³	2.5 mg/kg bw/d
Linalyl Acetate	-	-	8 mg/cm ²

Predicted No Effect Concentration (PNEC) No information available.

Chemical name	Fresh Water	Marine water	Intermittent release
PPG-2 Methyl Ether	19 mg/L	1.9 mg/L	190 mg/L
2,6-Dimethyl-7-Octen-2-ol	0.0278 mg/L	0.00278 mg/L	0.278 mg/L
Benzyl Acetate	0.018 mg/L	0.002 mg/L	0.04 mg/L
Linalool	0.2 mg/L	0.02 mg/L	2 mg/L
Hydroxycitronellal	0.0316 mg/L	0.00316 mg/L	0.316 mg/L
Terpineol	0.062 mg/L	0.0062 mg/L	-
Tricyclodecanyl Propionate	0.091 mg/L	0.0091 mg/L	0.025 mg/L
Limonene	0.014 mg/L	0.0014 mg/L	-
Citral	0.007 mg/L	0.001 mg/L	0.068 mg/L
Geraniol	0.011 mg/L	0.001 mg/L	0.108 mg/L
Tetrahydrolinalool	0.009 mg/L	0.001 mg/L	0.089 mg/L
Citronellol	0.002 mg/L	0 mg/L	0.024 mg/L
Cyclamen Aldehyde	0.0088 mg/L	0.00088 mg/L	0.014
Alpha-Isomethyl Ionone	0.00143 mg/L	0.000143 mg/L	0.0143 mg/L
Dimethylcyclohexenyl 3-butenyl ketone	0.0017 mg/L	0.00017 mg/L	0.017 mg/L

Nerol	0.00745 mg/L	0.000745 mg/L	0.0745 mg/L
Linalyl Acetate	0.011 mg/L	0.001 mg/L	0.11 mg/L

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment plant	Soil	Air	Oral
PPG-2 Methyl Ether	70.2 mg/kg sediment dw	7.02 mg/kg sediment dw	4168 mg/L	2.74 mg/kg soil dw	-	-
2,6-Dimethyl-7-Octen-2-ol	0.594 mg/kg sediment dw	0.059 mg/kg sediment dw	10 mg/L	0.103 mg/kg soil dw	-	-
Benzyl Acetate	0.526 mg/kg sediment dw	0.053 mg/kg sediment dw	8.55 mg/L	0.094 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	-	-
Hydroxycitronellal	0.145 mg/kg sediment dw	0.015 mg/kg sediment dw	10 mg/L	0.011 mg/kg soil dw	-	-
Terpineol	0.442 mg/kg sediment dw	0.044 mg/kg sediment dw	2.57 mg/L	0.052 mg/kg soil dw	-	-
Tricyclodecanyl Propionate	12.2 mg/kg sediment dw	1.22 mg/kg sediment dw	4.8 mg/L	4.4 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	-	-
Citral	0.125 mg/kg sediment dw	0.013 mg/kg sediment dw	1.6 mg/L	0.021 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	-	-
Tetrahydrolinalool	0.082 mg/kg sediment dw	0.008 mg/kg sediment dw	450 mg/L	0.011 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	-	-
Cyclamen Aldehyde	1.02 mg/kg sediment dw	0.102 mg/kg sediment dw	1 mg/L	0.199 mg/kg soil dw	-	-
Alpha-Isomethyl Ionone	0.443 mg/kg sediment dw	0.0443 mg/kg sediment dw	10 mg/L	0.0878mg/kg soil dw	-	-
Dimethylcyclohexenyl 3-butenyl ketone	0.242 mg/kg sediment dw	0.024 mg/kg sediment dw	4.6 mg/L	0.047 mg/kg soil dw	-	-
Nerol	0.133 mg/kg sediment dw	0.0133 mg/kg sediment dw	12.9 mg/L	0.0223 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	-	-

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

No information available.

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

<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	> 200 °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 No Data Available
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 applicable. This property is not relevant for liquid product forms
Decomposition temperature	No Data Available	Not available. This property is not relevant for the safety and classification of this product
pH	No data available	
Dynamic viscosity	3 - 12 mPa s	
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	0.93 - 0.99	
Relative vapor density	No data available	Not applicable. This property is not relevant for liquid product forms
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

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
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)	-
Benzyl Acetate	4999 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
Irival (IFF)	= 4250 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	-
Linalool	2790 mg/kg bodyweight (RAT)	5610 mg/kg (RABBIT)	21 mg/l/4h (RAT)
Florol	-	> 2000 mg/kg (Rabbit)	-
Hydroxycitronellal	6401 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
2-t-Butylcyclohexyl Acetate	= 4600 mg/kg (Rat)	-	-
Terpineol	= 2900 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	-

3a,4,5,6,7,7a-hexahydro-4,7-methano-1h-inden-5(6)-yl propionate	5001 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
D-Limonene	5001 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
citral	6800 mg/kg (RAT)	2001 mg/kg (RAT)	-
Geraniol	3600 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
Tetrahydrolinalool	8270 mg/kg bw	> 5000 mg/kg bw	> 0.885 mg/L air
Citronellol	3450 mg/kg bodyweight (rat)	2650 mg/kg bodyweight (rabbit)	-
2,4-Dimethyl-3-cyclohexene Carboxaldehyde	-	5000 mg/kg (RABBIT)	-
Cyclamen Aldehyde	4999 mg/kg (RAT)	5001 mg/kg (RAT)	-
Isomethyl Alpha Ionone	5001 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
Dynascone	5000 mg/kg (RAT)	-	-
Nerol	4500 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
Linalyl Acetate	9001 mg/kg (RAT)	5001 mg/kg (RAT)	-
3-(p-Cumenyl)propionaldehyde	5001 mg/kg (RAT)	-	-
Isoeugenol	= 1560 mg/kg (Rat)	1900 mg/kg (rabbit)	-
Floralozone	5001 mg/kg (RAT)	5001 mg/kg (RABBIT)	-

Chemical name	Carcinogenicity	Species	Eye Damage	Species	Developmental toxicity	Species	Mutagenicity	Species
Linalool	-	-	Y (OECD 405)	-	-	-	-	-
Hydroxycitronellal	-	-	Y	-	-	-	-	-
Terpineol	-	-	Y (100%; OECD 405)	-	-	-	-	-
Citral	-	-	Y (OECD 405)	-	-	-	-	-
Geraniol	-	-	Y (OECD 405)	-	-	-	-	-
Tetrahydrolinalool	-	-	Y	-	-	-	-	-
Citronellol	-	-	Y (OECD 405)	-	-	-	-	-
Nerol	-	-	Y (OECD 405)	-	-	-	-	-

Chemical name	Reproductive toxicity	Species	Skin corrosion/irritation	Species	Sensitization	Species
2,6-Dimethyl-7-Octen-2-ol	-	-	Y	-	-	-
Linalool	-	-	Y (OECD 404)	-	-	-
Terpineol	-	-	Y (100%; OECD 404)	-	-	-
Limonene	-	-	Y (OECD 404)	-	-	-
Citral	-	-	Y	-	-	-
Geraniol	-	-	Y (OECD 404)	-	-	-
Tetrahydrolinalool	-	-	Y	-	-	-
Citronellol	-	-	Y (OECD 404)	-	-	-
Cyclamen Aldehyde	-	-	Y	-	-	-
Nerol	-	-	Y (OECD 404)	-	-	-
Linalyl Acetate	-	-	Y (OECD 404)	-	-	-

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

Chemical name	Skin sensitization	Species	STOT - single exposure	Target Organs	Species	STOT - repeated exposure	Target Organs	Species	Aspiration hazard
	429)								
Citral	Y (OECD 406)	-	-	-	-	-	-	-	-
Geraniol	Y (//OECD 429)	-	-	-	-	-	-	-	-
Tetrahydrolinalool	Y (OECD 429)	-	-	-	-	-	-	-	-
Citronellol	Y (OECD 429)	-	-	-	-	-	-	-	-
Cyclamen Aldehyde	Y (OECD 429)	-	-	-	-	-	-	-	-
Dimethylcyclohexenyl 3-butenyl ketone	Y (OECD 406)	-	-	-	-	-	-	-	-
Nerol	Y (OECD 429)	-	-	-	-	-	-	-	-
3-(p-cumenyl)Propionaldehyde	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.

Unknown aquatic toxicity

Contains 0.64679 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
PPG-2 Methyl Ether	> 969 mg/L (OECD 201; Pseudokirchnerella subcapitata; 72 h)	> 1000 mg/L (OECD 203; Poecilia reticulata; 96 h)	-	1919 mg/L (OECD 202; Daphnia magna; 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)
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)
Irival (IFF)	-	LC50: =7.7mg/L (96h, Pimephales promelas)	-	-
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)
Hydroxycitronellal	123.32 mg/L (OECD 201; Desmodesmus subspicatus; 72 h)	31.6 mg/L (Leuciscus idus; 96 h)	> 1000 mg/L (OECD 209; activated sludge; 0.5 h)	410 mg/L (Daphnia magna; 48 h)
Terpineol	68 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	62 mg/L (OECD 203; Danio rerio; 96 h)	-	73 mg/L (OECD 202; Daphnia magna; 48 h)
3a,4,5,6,7,7a-hexahydro-4,7-methano-1h-inden-5(6)-yl propionate	2.5 mg/L (OECD 201; Desmodesmus subspicatus; 72 h)	6.7 mg/L (OECD 203; Pimephales promelas; 96 h)	EC50: 53 mg/L (ISO 8192; activated sludge of a predominantly domestic sewage; 0.5 h)	> 14 mg/L (OECD 202; 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)
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)
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)
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)
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)
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)
Isomethyl Alpha Ionone	> 20 mg/L (OECD 201; Desmodesmus subspicatus; 72 h)	-	-	-
Dynascone	3.4 mg/L (EU Method C.3; Raphidocelis subcapitata; 72 h)	1.904 mg/L (96 h)	960 mg/L (OECD 209; Micro-organisms in activated sludge; 3 h)	1.2 mg/L (EU Method C.2; 48 h)
Nerol	9.54 mg/L (OECD 201; Pseudokirchneriella	20.3 mg/L (OECD 203; Danio rerio; 96 h)	EC50: 241 mg/L (OECD 209; activated sludge of a	32.4 mg/L (OECD 202; Daphnia magna; 48 h)

	subcapitata; 72 h)		predominantly domestic sewage; 3 h)	
Linalyl Acetate	1 mg/L (OECD 201; <i>Desmodesmus subspicatus</i> ; 72 h)	11 mg/L (OECD 203; <i>Cyprinus carpio</i> ; 96 h)	> 100 mg/L (OECD 209; activated sludge of a predominantly domestic sewage; 3 h)	59 mg/L (OECD 202; <i>daphnia magna</i> ; static; 48 h)
Undecenal	47.3 mg/L (OECD 201; <i>Desmodesmus subspicatus</i> ; 72 h)	8.51 mg/L (OECD 203; <i>Danio rerio</i> ; 96 h)	6.25 mg/L (<i>Saccharomyces cerevisiae</i> ; 48 h)	3.147 mg/L (<i>Daphnia magna</i> ; 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
PPG-2 Methyl Ether	969 mg/L (OECD 201; <i>Pseudokirchnerella subcapitata</i> ; 3 d)	-	> 0.5 mg/L (//OECD 211; <i>Daphnia magna</i> ; 22 d)	4168 mg/L (<i>Pseudomonas putida</i> ; 0.75 d)	-
2,6-Dimethyl-7-Octen-2-ol	25 mg/L (OECD 201; <i>Desmodesmus subspicatus</i> ; 3 d)	3.4 mg/L (OECD 203; <i>Oncorhynchus mykiss</i> ; 4 d)	9.5 mg/L (OECD 211; <i>Daphnia magna</i> ; 21 d)	-	-
Benzyl Acetate	52 mg/L (OECD 201; <i>Desmodesmus subspicatus</i> ; 3 d)	0.92 mg/L (<i>Oryzias latipes</i> ; 28 d)	10 mg/L (OECD 202; <i>Daphnia magna</i> ; 2 d)	-	-
Linalool	54.3 mg/L (DIN 38412 L 9; <i>Desmodesmus subspicatus</i> ; 4 d)	< 3.5 mg/L (OECD 203; <i>Oncorhynchus mykiss</i> ; 4 d)	25 mg/L (OECD 202; <i>Daphnia magna</i> ; 2 d)	> 100 mg/L (OECD 209; 0.125 d)	-
Hydroxycitronellal	42.36 mg/L (OECD 201; <i>Desmodesmus subspicatus</i> ; 3 d)	-	-	> 1000 mg/L (OECD 209; 0.5 h)	-
Terpineol	3.9 mg/L (OECD 201; <i>Pseudokirchnerella subcapitata</i> ; 3 d)	-	-	-	-
Tricyclodecanyl Propionate	1.8 mg/L (OECD 201; <i>Desmodesmus subspicatus</i> ; 3 d)	0.8 mg/L (OECD 210; <i>Pimephales promelas</i> ; 33 d)	1 mg/L (OECD 211; <i>Daphnia magna</i> ; 21 d)	53 mg/L (ISO 8192; 0.5 h)	-
Limonene	50 mg/L (OECD 201; <i>Desmodesmus subspicatus</i> ; 3 d)	0.19 - 0.059 mg/L (OECD 212; <i>Pimephales promelas</i> ; 8 d)	-	18 mg/L (OECD 209; 0.125 d)	-
Citral	3 mg/L (DIN 38412 L9; <i>Desmodesmus subspicatus</i> ; 3 d)	4.6 mg/L (<i>Leuciscus idus</i> ; 4 d)	-	68 mg/L (OECD 209; 0.02083 d)	-
Geraniol	1 mg/L (OECD 201; <i>Desmodesmus subspicatus</i> ; 3 d)	10 mg/L (OECD 203; <i>Danio rerio</i> ; 4 d)	-	13 mg/L (OECD 209; 0.5 h)	-
Tetrahydrolinalool	9.5 mg/L (DIN 38 412, L9; <i>Desmodesmus subspicatus</i> ; 3 d)	5 mg/L (OECD 203; <i>Danio rerio</i> ; 4 d)	8.2 mg/L (OECD 202; <i>Daphnia magna</i> ; 2 d)	EC10: 450 mg/L (DIN 38412-27; <i>Pseudomonas putida</i> ; 0.5 h)	-
Citronellol	1.1 mg/L (<i>Scenedesmus subspicatus</i> ; 3 d)	4.6 mg/L (German standard DIN 38 412, part L15.; <i>Leuciscus idus</i> ; 4 d)	3.1 mg/L (EU Directive 79/831/EEC, Annex V, part C.; <i>Daphnia magna</i> ; 2 d)	580 mg/L (DIN 38412, Part 27; <i>Pseudomonas putida</i> ; 0.02083 d)	-
Cyclamen Aldehyde	0.72 mg/L (OECD 201; <i>Pseudokirchnerella subcapitata</i> ; 4 d)	-	0.71 mg/L (OECD 211; <i>Daphnia magna</i> ; 21 d)	-	-
Alpha-Isomethyl Ionone	10 mg/L (OECD 201; <i>Desmodesmus subspicatus</i> ; 72 h)	7.8 mg/L (OECD 203; <i>Oncorhynchus mykiss</i> ; 4 d)	1 mg/L (OECD 202; <i>Daphnia magna</i> ; 2 d)	894.195 mg/L (<i>Colletotrichum musae</i> DAR 24962; 10 d)	-
Dimethylcyclohexenyl 3-butenyl ketone	0.72 mg/L (OECD 201; <i>Pseudokirchnerella subcapitata</i> ; 3 d)	-	-	46 mg/L (OECD 209; Micro-organisms in activated sludge; 0.125 d)	-
Nerol	3.48 mg/L (OECD 201; <i>Pseudokirchnerella subcapitata</i> ; 3 d)	-	-	-	-

Linalyl Acetate	13.1 mg/L (OECD 201; desmodemus 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)	-
3-(p-cumenyl)Propionaldehyde	2.3 mg/L (OECD 201; Pseudokirchneriella subcapitata; 3 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
PPG-2 Methyl Ether - 34590-94-8	96% DOC; OECD 301 F; 75% (10 d)	-	-	-
2,6-Dimethyl-7-octen-2-ol - 18479-58-8	72%CO ₂ ; OECD 301 B; 28 d	-	-	-
Benzyl Acetate - 140-11-4	100.9 %CO ₂ ; OECD 301 B; 28 d	-	-	-
Linalool - 78-70-6	64.2% O ₂ ; OECD 301 D; 28 d	-	-	-
Hydroxycitronellal - 107-75-5	80 - 90%; OECD 301 F; O ₂ ; 21 d	-	-	-
Terpineol - 8000-41-7	80%; OECD 310; > 60% (10-d)	-	-	-
3a,4,5,6,7,7a-hexahydro-4,7-methano-1h-inden-5(6)-yl propionate - 68912-13-0	15% O ₂ ; OECD 301 F; 28 d	-	-	-
D-Limonene - 5989-27-5	71.4%CO ₂ ; OECD 301 B; 28 d	-	-	-
citral - 5392-40-5	> 90%O ₂ ; EU Method C.4-D; 28 d	-	-	-
Geraniol - 106-24-1	90 - 100%; OECD 301 A; 3 d	-	-	-
Tetrahydrolinalool - 78-69-3	60 - 70%O ₂ ; OECD 301 F; 28 d	-	-	-
Citronellol - 106-22-9	80 - 90% O ₂ ; 28 d	-	-	-
Cyclamen Aldehyde - 103-95-7	65.5% CO ₂ ; OECD 301 B; 28 d	-	-	-
Isomethyl Alpha Ionone - 127-51-5	42.51%O ₂ ; OECD 301 D; 28 d	-	-	-
Dynascone - 56973-85-4	100% (OECD 301 C; 28 d)	-	-	-
Nerol - 106-25-2	90%; OECD 301 D; O ₂ consumption; 28 d; 14 day window fulfilled; 28 d	-	-	-
Linalyl Acetate - 115-95-7	≥ 70 - ≤ 80O ₂ ; OECD 301 F; 28 d	-	-	-
3-(p-Cumenyl)propionaldehyde - 7775-00-0	71% O ₂ ; OECD 301 D; 28 d	-	-	-
Undecenal - 1337-83-3	50%; 21 d	-	-	-

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
PPG-2 Methyl Ether	0.35
2,6-Dimethyl-7-Octen-2-ol	3.25
Benzyl Acetate	1.96
Trimethylhexyl Acetate	4.6
Linalool	2.9
Isobutyl Methyl Tetrahydropyranol	1.65
Hydroxycitronellal	1.68
Tricyclodecanyl Propionate	4.4
Limonene	4.38
Citral	2.76
Geraniol	2.6

Tetrahydrolinalool	4.63
Citronellol	3.41
Cyclamen Aldehyde	3.4
Alpha-Isomethyl Ionone	4.288
Dimethylcyclohexenyl 3-butenyl ketone	4.1
Nerol	2.76
Linalyl Acetate	3.9
3-(p-cumenyl)Propionaldehyde	3.5

Chemical name	Octanol/water partition coefficient	Bioconcentration factor (BCF)
PPG-2 Methyl Ether	0.004	-
2,6-Dimethyl-7-Octen-2-ol	3.25 (OECD 117)	64.8 L/kg
Benzyl Acetate	1.96	8
Linalool	2.9	-
Hydroxycitronellal	1.68	-
Terpineol	2.6	-
Tricyclodecanyl Propionate	4.4 (OECD 117)	156 L/kg (OECD 305)
Limonene	4.38 (OECD 117)	864.8 L/kg
Citral	2.76 (OECD 107)	-
Geraniol	2.6 (OECD 117)	-
Tetrahydrolinalool	3.3 (OECD 107)	99.87 L/kg
Citronellol	3.41 (EU Method A.8)	82.59 L/kg
Cyclamen Aldehyde	3.4 (OECD 117)	155 L/kg
Alpha-Isomethyl Ionone	4.288 (OECD 117)	-
Dimethylcyclohexenyl 3-butenyl ketone	4.1 (EU Method A.8)	-
Nerol	2.76 (EU Method A.8)	30.76 L/kg
Linalyl Acetate	3.9 (OECD 107)	174 L/kg
3-(p-cumenyl)Propionaldehyde	3.5 (OECD 117)	-
Undecenal	4.04	9.1 L/kg

12.4. Mobility in soil

Mobility in soil

Chemical name	log Koc
2,6-Dimethyl-7-Octen-2-ol	177.83
Benzyl Acetate	250
Hydroxycitronellal	10
Terpineol	> 28.8 (OECD 106)
Tricyclodecanyl Propionate	1300 (OECD 121)
Limonene	6324 L/kg
Citral	147.7
Geraniol	70.79
Tetrahydrolinalool	56.3
Citronellol	70.79
Cyclamen Aldehyde	3.05 (OECD 121)
Alpha-Isomethyl Ionone	3061.963 (OECD 121)
Dimethylcyclohexenyl 3-butenyl ketone	2446 L/kg
Nerol	94.15
Linalyl Acetate	432.4 L/kg
Undecenal	852

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
PPG-2 Methyl Ether	The substance is not PBT / vPvB
2,6-Dimethyl-7-Octen-2-ol	The substance is not PBT / vPvB
Benzyl Acetate	The substance is not PBT / vPvB
Trimethylhexyl Acetate	The substance is not PBT / vPvB
Linalool	The substance is not PBT / vPvB
Isobutyl Methyl Tetrahydropyranol	The substance is not PBT / vPvB
Hydroxycitronellal	The substance is not PBT / vPvB
Tricyclodecanyl Propionate	The substance is not PBT / vPvB
Limonene	The substance is not PBT / vPvB
Citral	The substance is not PBT / vPvB

Geraniol	The substance is not PBT / vPvB
Tetrahydrolinalool	The substance is not PBT / vPvB
Citronellol	The substance is not PBT / vPvB
Cyclamen Aldehyde	The substance is not PBT / vPvB
Alpha-Isomethyl Ionone	The substance is not PBT / vPvB
Dimethylcyclohexenyl 3-butenyl ketone	The substance is not PBT / vPvB
Nerol	The substance is not PBT / vPvB
Linalyl Acetate	The substance is not PBT / vPvB
Undecenal	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

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 products)
14.3 Transport hazard class(es) 9
14.4 Packing group III
Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Perfumery products), 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 products)
14.3 Transport hazard class(es) 9
14.4 Packing group III
Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Perfumery products), 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 products)
14.3 Transport hazard class(es) 9
14.4 Packing group III
Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Perfumery products), 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 products)
14.3 Transport hazard class(es) 9
14.4 Packing group III
Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Perfumery products), 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 products)
Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Perfumery products), 9, III
14.3 Transport hazard class(es) 9
14.4 Packing group III
14.5 Marine pollutant Yes
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
PPG-2 Methyl Ether	RG 84	-
Limonene	RG 84	-

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
Linalool	75.	-
Isobutyl Methyl Tetrahydropyranol	75.	-
Limonene	75.	-
Citral	75.	-
Geraniol	75.	-
Isoeugenol	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)
D-Limonene - 5989-27-5	Plant protection agent
Geraniol - 106-24-1	Plant protection agent

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
- H312 - Harmful in contact with skin
- H315 - Causes skin irritation
- H317 - May cause an allergic skin reaction
- H318 - Causes serious eye damage
- H319 - Causes serious eye irritation
- H332 - Harmful if inhaled
- H335 - May cause respiratory irritation

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