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: 26-Jun-2023 **Revision Date:** 26-Jun-2023 **Revision Number** 1

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

1.1. Product identifier

Product Identifier	90373562_RET_CLPR7_EUR_SAW-91961127-91989996
Product Name	Febreze 3Volution Cotton Fresh
Synonyms	91989996 (+90373562+91961127)/C-91989996-001 (+C-90373562-001+ C-91961127-002) 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	10 - 20	01-2119450011-60	236-547-9 252-104-2	NC	-	-	-
Pentamethylheptenone	81786-74-5	10 - 20	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)	-	-	-
Linalool	78-70-6	5 - 10	01-2119474016-42	201-134-4	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Eye Irrit. 2(H319)	-	-	-
Propanoic Acid, 2-(1,1-Dimethylpropoxy)+	319002-92-1	1 - 5	01-0000018277-65	437-530-0	Aquatic Chronic 3(H412)	-	-	-
Benzyl Acetate	140-11-4	1 - 5	01-2119638272-42	205-399-7	Aquatic Chronic	-	-	-

					3(H412)			
Hydroxycitronellal	107-75-5	1 - 5	01-2119973482-31	203-518-7	Skin Sens. 1B(H317) Eye Irrit. 2(H319)	-	-	-
2-T-Butylcyclohexyl Acetate	20298-69-5	1 - 5	01-2119970713-33	201-828-7 243-718-1	Aquatic Chronic 2(H411)	-	-	-
Limonene	5989-27-5	1 - 5	01-2119529223-47	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)	-	-	-
Isobutyl Methyl Tetrahydropyranol	63500-71-0	1 - 5	01-2119455547-30	405-040-6	Eye Irrit. 2(H319)	-	-	-
Linalyl Acetate	115-95-7	1 - 5	01-2119454789-19	204-116-4	Skin Irrit. 2(H315) Skin Sens. 1B(H317)	-	-	-
Anisaldehyde	123-11-5	1 - 5	01-2119977101-43	204-602-6	Aquatic Chronic 3(H412)	-	-	-
Phenethyl Alcohol	60-12-8	1 - 5	01-2119963921-31	200-456-2	Acute Tox. 4 (Oral)(H302) Eye Irrit. 2(H319)	-	-	-
Alpha-Isomethyl Ionone	127-51-5	1 - 5	No data available	204-846-3	Skin Sens. 1B(H317) Aquatic Chronic 2(H411)	-	-	-
Citronellol	106-22-9	1 - 5	01-2119453995-23	203-375-0	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Eye Irrit. 2(H319)	-	-	-
Geraniol	106-24-1	0 - 1	01-2119552430-49	203-377-1	Skin Irrit. 2(H315) Eye Dam. 1(H318) Skin Sens. 1(H317)	-	-	-
Cis-3-Hexenyl Salicylate	65405-77-8	0 - 1	01-2119987320-37	265-745-8	Aquatic Acute 1(H400) Aquatic Chronic 2(H411)	-	-	-
Dihydro Pentamethylindanone	33704-61-9	0 - 1	01-2119977131-40	251-649-3	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Eye Irrit. 2(H319)	-	-	-

					Aquatic Chronic 2(H411)			
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)	-	-	-
Heliotropine	120-57-0	0 - 1	01-2119983608-21	204-409-7	Skin Sens. 1B(H317)	-	-	-
Allyl Cyclohexylpropionate	2705-87-5	0 - 1	01-2119976355-27	220-292-5	Acute Tox. 4 (Oral)(H302) Acute Tox. 4 (Dermal)(H312) Skin Sens. 1(H317) Acute Tox. 4 (Inhalation:vapour)(H332) Aquatic Acute 1(H400) Aquatic Chronic 1(H410)	-	-	-
Methylcyclopentadecenone	63314-79-4	0 - 1	01-0000017618-62	429-900-5	Skin Sens. 1B(H317) Aquatic Acute 1(H400) Aquatic Chronic 3(H412)	-	-	-
Methyl isoeugenol	93-16-3	0 - 1	01-2120223689-47	202-224-6 228-958-7	Skin Sens. 1B(H317)	-	-	-
Nerol	106-25-2	0 - 1	01-2119983244-33	203-378-7	Skin Irrit. 2(H315) Skin Sens. 1B(H317) Eye Irrit. 2(H319)	-	-	-
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)	-	-	-
Delta-Damascone	57378-68-4	0 - 1	01-2119535122-53	260-709-8 275-156-8	Acute Tox. 4 (Oral)(H302) Skin Irrit. 2(H315) Skin Sens. 1A(H317) Aquatic Acute 1(H400) Aquatic Chronic 1(H410)	-	-	-
Isoeugenol	97-54-1	0 - 1	01-2120223682-61	202-590-7 227-678-2	Acute Tox. 4 (Oral)(H302)	Skin Sens. 1A;H317 ::	-	-

					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)	0.01%<=C<100%		

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.

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 *
Benzyl Acetate	-	-	TWA: 10 ppm TWA: 62 mg/m³	-	-

Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
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*
Benzyl Acetate	-	-	TWA: 10 ppm TWA: 61 mg/m³	-	-
Limonene	-	-	-	TWA: 25 ppm TWA: 150 mg/m³	TWA: 25 ppm TWA: 140 mg/m³

				STEL: 50 ppm STEL: 300 mg/m³	STEL: 50 ppm STEL: 280 mg/m³
Chemical name	France	Germany	Germany DFG	Greece	Hungary
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
Hydroxycitronellal	-	-	skin sensitizer	-	-
Limonene	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	-	-
Phenethyl Alcohol	-	-	*	-	-
Geraniol	-	-	skin sensitizer	-	-
Isoeugenol	-	-	skin sensitizer	-	-
Chemical name	Ireland	Italy	Italy REL	Latvia	Lithuania
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
Benzyl Acetate	TWA: 10 ppm STEL: 30 ppm	-	TWA: 10 ppm TWA: 61 mg/m³	TWA: 5 mg/m³	TWA: 5 mg/m³
Limonene	-	-	-	-	Sensitizer TWA: 25 ppm TWA: 150 mg/m³ STEL: 50 ppm STEL: 300 mg/m³
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
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 *
Limonene	-	-	-	TWA: 25 ppm TWA: 140 mg/m³ STEL: 37.5 ppm STEL: 175 mg/m³	-
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
PPG-2 Methyl Ether	TWA: 50 ppm TWA: 308 mg/m³ STEL: 150 ppm P*	TWA: 50 ppm TWA: 308 mg/m³ *	TWA: 50 ppm TWA: 308 mg/m³ *	TWA: 50 ppm TWA: 308 mg/m³ STEL: STEL ppm STEL: STEL mg/m³ *	TWA: 50 ppm TWA: 308 mg/m³ vía dérmica*
Benzyl Acetate	TWA: 10 ppm	TWA: 8 ppm TWA: 50 mg/m³ STEL: 13 ppm STEL: 80 mg/m³	-	-	TWA: 10 ppm TWA: 62 mg/m³
Limonene	-	-	-	TWA: 28 mg/m³ TWA: 5 ppm STEL: STEL ppm STEL: STEL mg/m³ *	TWA: 30 ppm TWA: 168 mg/m³ vía dérmica* sensitizer
Chemical name	Sweden	Switzerland	United Kingdom	Israel - Occupational Exposure Limits - TWAs	Turkey
PPG-2 Methyl Ether	NGV: 50 ppm	TWA: 50 ppm	TWA: 50 ppm	50ppmTWA	50ppmTWA

	NGV: 300 mg/m³ Vägledande KGV: 75 ppm Vägledande KGV: 450 mg/m³ *	TWA: 300 mg/m³ STEL: 50 ppm STEL: 300 mg/m³	TWA: 308 mg/m³ STEL: 150 ppm STEL: 924 mg/m³ Sk*		308mg/m³TWA
Benzyl Acetate	-	-	-	10ppmTWA	-
Limonene	NGV: 25 ppm NGV: 150 mg/m³ Sensitizer	TWA: 7 ppm TWA: 40 mg/m³ STEL: 14 ppm STEL: 80 mg/m³	-	-	-

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/m³	-	-
Linalool	3.5 mg/kg bw/day	24.58 mg/m³	3 mg/cm²	-
Benzyl Acetate	2.5 mg/kg bw/day	0.009 mg/l	-	-
Hydroxycitronellal	1.9 mg/kg bw/day	18 mg/m³	-	-
Limonene	9.5 mg/kg bw/day	66.7 mg/m³	-	-
Linalyl Acetate	2.5 mg/kg bw/day	2.75 mg/m³	0.2362 mg/cm²	0.2362 mg/cm²
Anisaldehyde	3.33 mg/kg bw/day	5.88 mg/m³	-	-
Phenethyl Alcohol	21.2 mg/kg bw/day	59.9 mg/m³	-	-
Alpha-Isomethyl Ionone	0.375 mg/kg bw/day	8.22 mg/m³	-	-
Citronellol	327.4 mg/kg bw/day	161.6 mg/m³	-	10 mg/m³
Geraniol	12.5 mg/kg bw/day	161.6 mg/m³	11.8 mg/cm²	-
Dihydro Pentamethylindanone	0.42 mg/kg bw/d	1.47 mg/m³	5.51 mg/cm²	-
Heliotropine	2.5 mg/kg bw/day	17.6 mg/m³	-	-
Nerol	1.25 mg/kg bw/day	4.4 mg/m³	0.133 mg/cm²	-
Allyl (cyclohexyloxy)Acetate	0.448 mg/kg bw/day	3.16 mg/m³	-	-
Delta-Damascone	0.4 mg/kg bw/d	1.5 mg/m³	-	-

Chemical name	Consumer - oral, long-term - local	Consumer - inhalative, long-term - local	Consumer - dermal, long-term - local
Linalool	-	-	1.5 mg/cm²
Linalyl Acetate	-	-	0.2362 mg/cm²
Citronellol	-	10 mg/m³	-
Geraniol	-	-	11.8 mg/cm²
Dihydro Pentamethylindanone	-	-	3.241 mg/cm²

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/m³	121 mg/kg bw/d
Linalool	2.49 mg/kg bw/day	4.33 mg/m³	1.25 mg/kg bw/day
Benzyl Acetate	1.3 mg/kg bw/day	0.022 mg/l	1.3 mg/kg bw/day
Hydroxycitronellal	0.6 mg/kg bw/day	5.4 mg/m³	1.1 mg/kg bw/day
Limonene	4.8 mg/kg bw/day	16.6 mg/m³	4.8 mg/kg bw/day
Linalyl Acetate	0.2 mg/kg bw/day	0.68 mg/m³	1.25 mg/kg bw/day
Anisaldehyde	1 mg/kg bw/day	1.74 mg/m³	2 mg/kg bw/day
Phenethyl Alcohol	5.1 mg/kg bw/day	17.7 mg/m³	12.7 mg/kg bw/day
Alpha-Isomethyl Ionone	0.0355 mg/kg bw/day	1.45 mg/m³	0.0446 mg/kg bw/day
Citronellol	13.8 mg/kg bw/day	47.8 mg/m³	196.4 mg/kg bw/day
Geraniol	13.75 mg/kg bw/day	47.8 mg/m³	7.5 mg/kg bw/d
Dihydro Pentamethylindanone	0.25 mg/kg bw/d	0.44 mg/m³	0.25 mg/kg bw/d
Heliotropine	1.25 mg/kg bw/day	4.3 mg/m³	1.25 mg/kg bw/day

Nerol	0.62 mg/kg bw/day	1.09 mg/m³	0.62 mg/kg bw/day
Allyl (cyclohexyloxy)Acetate	0.16 mg/kg bw/day	0.557 mg/m³	0.16 mg/kg bw/day
Delta-Damascone	0.25 mg/kg bw/d	1.5 mg/m³	0.4 mg/kg bw.d

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/m³	15 mg/cm²	3 mg/cm²
Hydroxycitronellal	-	-	0.5 mg/cm²	0.5 mg/cm²
Limonene	-	-	0.222 mg/cm²	-
Linalyl Acetate	-	-	8 mg/cm²	-
Citronellol	-	-	2.950 mg/cm²	2.95 mg/cm²
Delta-Damascone	-	-	0.014 mg/cm²	-

Chemical name	Consumer - inhalative, short-term - local	Consumer - dermal, short-term - local
Linalool	-	1.5 mg/cm²
Hydroxycitronellal	-	500 mg/cm²
Limonene	-	0.111 mg/cm²
Linalyl Acetate	-	236.2 mg/cm²
Citronellol	10 mg/m³	2.95 mg/cm²
Delta-Damascone	-	0.0086 mg/cm²

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/m³	2.5 mg/kg bw/d
Linalyl Acetate	-	-	8 mg/cm²
Phenethyl Alcohol	5.1 mg/kg bw/day	-	-

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
Linalool	0.2 mg/L	0.02 mg/L	2 mg/L
Benzyl Acetate	0.018 mg/L	0.002 mg/L	0.04 mg/L
Hydroxycitronellal	0.0316 mg/L	0.00316 mg/L	0.316 mg/L
2-T-Butylcyclohexyl Acetate	0.057 mg/L	0.006 mg/L	0.017 mg/L
Limonene	0.014 mg/L	0.0014 mg/L	-
Linalyl Acetate	0.011 mg/L	0.001 mg/L	0.11 mg/L
Anisaldehyde	0.013 mg/L	0.0013 mg/L	0.8111 mg/L
Phenethyl Alcohol	0.215 mg/L	0.021 mg/L	2.15 mg/L
Alpha-Isomethyl Ionone	0.00143 mg/L	0.000143 mg/L	0.0143 mg/L
Citronellol	0.002 mg/L	0 mg/L	0.024 mg/L
Geraniol	0.011 mg/L	0.001 mg/L	0.108 mg/L
Dihydro Pentamethylindanone	0.004 mg/L	0.0004 mg/L	-
Heliotropine	0.0025 mg/L	0.00025 mg/L	0.025 mg/L
Methylcyclopentadecenone	0.00242 mg/L	0.000242 mg/L	0.0022 mg/L
Nerol	0.00745 mg/L	0.000745 mg/L	0.0745 mg/L
Allyl (cyclohexyloxy)Acetate	0.00205 mg/L	0.000205 mg/L	0.00205 mg/L
Delta-Damascone	0.007 mg/L	0.0007 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	-	-
Linalool	2.22 mg/kg sediment dw	0.222 mg/kg sediment dw	10 mg/L	0.327 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	-	-
Hydroxycitronellal	0.145 mg/kg	0.015 mg/kg	10 mg/L	0.011 mg/kg soil	-	-

	sediment dw	sediment dw		dw		
2-T-Butylcyclohexyl Acetate	7.62 mg/kg sediment dw	0.762 mg/kg sediment dw	10 mg/L	4.4 mg/kg soil dw	-	-
Limonene	3.85 mg/kg sediment dw	0.385 mg/kg sediment dw	1.8 mg/L	0.763 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	-	-
Anisaldehyde	0.06 mg/kg sediment dw	0.006 mg/kg sediment dw	8.5 mg/L	0.004 mg/kg soil dw	-	-
Phenethyl Alcohol	1.454 mg/kg sediment dw	0.145 mg/kg sediment dw	10 mg/L	0.164 mg/kg soil dw	-	-
Alpha-Isomethyl Ionone	0.443 mg/kg sediment dw	0.0443 mg/kg sediment dw	10 mg/L	0.0878mg/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	-	-
Geraniol	0.115 mg/kg sediment dw	0.011 mg/kg sediment dw	0.7 mg/L	0.017 mg/kg soil dw	-	-
Dihydro Pentamethylindanone	0.0991 mg/kg sediment dw	0.00991 mg/kg sediment dw	10 mg/L	0.0174 mg/kg soil dw	-	-
Heliotropine	0.0119 mg/kg	0.0012 mg/kg sediment dw	10 mg/L	0.00084 mg/kg soil dw	-	-
Methylcyclopentadecenone	3.66 mg/kg sediment dw	0.37 mg/kg sediment dw	10 mg/L	2.34 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	-	-
Allyl (cyclohexyloxy)Acetate	0.0387 mg/kg sediment dw	0.00387 mg/kg sediment dw	0.3 mg/L	0.375 mg/kg soil dw	-	-
Delta-Damascone	0.906 mg/kg sediment dw	0.0906 mg/kg sediment dw	2.41 mg/L	0.177 mg/kg soil dw	-	-

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

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	> 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)	-
Linalool	2790 mg/kg bodyweight (RAT)	5610 mg/kg (RABBIT)	21 mg/l/4h (RAT)
Benzyl Acetate	4999 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
Hydroxycitronellal	6401 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
cis-2-tert-Butylcyclohexyl acetate	4600 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
D-Limonene	5001 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
Florol	-	> 2000 mg/kg (Rabbit)	-
Linalyl Acetate	9001 mg/kg (RAT)	5001 mg/kg (RAT)	-
Anisic Aldehyde	3210 mg/kg (RAT)	5001 mg/kg (RABBIT)	21 mg/l (RAT)
Phenethyl Alcohol	1603.3 mg/kg (RAT)	2535 mg/kg (RABBIT)	21 mg/l (RAT)
Isomethyl Alpha Ionone	5001 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
Citronellol	3450 mg/kg bodyweight (rat)	2650 mg/kg bodyweight (rabbit)	-
Geraniol	3600 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
cis-3-Hexenyl Salicylate	= 5 g/kg (Rat)	> 2000 mg/kg (Rabbit)	-
Cashmeran	2900 mg/kg bodyweight (RAT)	//	//
2,4-Dimethyl-3-cyclohexene Carboxaldehyde	-	5000 mg/kg (RABBIT)	-
Heliotropine	2700 mg/kg (RAT)	5001 mg/kg (RAT)	-
Allylcyclohexyl Propionate	480 mg/kg (RAT)	1600 mg/kg (RABBIT)	-
delta-Muscenone	5001 mg/kg (RAT)	5001 mg/kg (RAT)	-

Isoeugenyl Methyl Ether	2500 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
Nerol	4500 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
Cyclogalbaniff	621 mg/kg (RAT)	5001 mg/kg (RAT)	-
delta Damascone	1400 mg/kg (RAT)	5001 mg/kg (RABBIT)	-
Isoeugenol	= 1560 mg/kg (Rat)	1900 mg/kg (rabbit)	-

Chemical name	Carcinogenicity	Species	Eye Damage	Species	Developmental toxicity	Species	Mutagenicity	Species
Linalool	-	-	Y (OECD 405)	-	-	-	-	-
Hydroxycitronellal	-	-	Y	-	-	-	-	-
Phenethyl Alcohol	-	-	Y	-	-	-	-	-
Citronellol	-	-	Y (OECD 405)	-	-	-	-	-
Geraniol	-	-	Y (OECD 405)	-	-	-	-	-
Dihydro Pentamethylindanone	-	-	Y (100%; OECD 438)	-	-	-	-	-
Nerol	-	-	Y (OECD 405)	-	-	-	-	-

Chemical name	Reproductive toxicity	Species	Skin corrosion/irritation	Species	Sensitization	Species
Linalool	-	-	Y (OECD 404)	-	-	-
2-T-Butylcyclohexyl Acetate	-	-	Y (OECD 404)	-	-	-
Limonene	-	-	Y (OECD 404)	-	-	-
Linalyl Acetate	-	-	Y (OECD 404)	-	-	-
Phenethyl Alcohol	-	-	Y	-	-	-
Citronellol	-	-	Y (OECD 404)	-	-	-
Geraniol	-	-	Y (OECD 404)	-	-	-
Dihydro Pentamethylindanone	-	-	Y (100%; OECD 439)	-	-	-
Nerol	-	-	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 429)	-	-	-	-	-	-	-	-
Citronellol	Y (OECD 429)	-	-	-	-	-	-	-	-
Geraniol	Y (//OECD 429)	-	-	-	-	-	-	-	-
Dihydro Pentamethylindanone	Y (OECD 429)	-	-	-	-	-	-	-	-
Heliotropine	Y (OECD 406)	-	-	-	-	-	-	-	-
Methyl isoeugenol	Y (OECD 429)	-	-	-	-	-	-	-	-
Nerol	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 % 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)
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)
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)
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)
cis-2-tert-Butylcyclohexyl	4.2 mg/L (OECD 201;	5.6 mg/L (EU Method C.1;	-	17 mg/L (EU Method C.2;

acetate	Desmodesmus subspicatus; 72 h)	Danio rerio; 96 h)		Daphnia magna; 48 h)
D-Limonene	0.32 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	0.72 mg/L (OECD 203; Pimephales promelas; 96 h)	EC50: 209 mg/L (OECD 209; activated sludge of a predominantly domestic sewage; 3 h)	0.307 mg/L (OECD 202; Daphnia magna; 48 h)
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)
Anisic Aldehyde	68.4 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	148.32 mg/L (DIN 38 412, part L15; Leuciscus idus; 96 h)	EC50: 850 mg/L (ISO 8192; activated sludge, domestic; 0.5 h)	82.8 mg/L (daphnia magna; 48 h)
Phenethyl Alcohol	1300 mg/L; (Desmodesmus subspicatus; 72 h)	> 215 - < 464 mg/L (Leuciscus idus; 96 h)	> 100 mg/L (OECD 209; activated sludge; 3 h)	287.17 mg/L (EU Method C.2; Daphnia magna; 48 h)
Isomethyl Alpha Ionone	> 20 mg/L (OECD 201; Desmodesmus subspicatus; 72 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)
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)
Cashmeran	10 mg/L (OECD 201; Desmodesmus subspicatus; 72 h)	2.12 mg/L (Oryzias latipes; 96 h)	> 1000 mg/L (OECD 209; 3 h)	1.5 mg/L (OECD 202; Daphnia magna; 48 h)
Heliotropine	31 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	2.5 mg/L (OECD 203; Cyprinus carpio; 96 h)	-	52 mg/L (OECD 202; Daphnia magna; 48 h)
Allylcyclohexyl Propionate	-	LC50: =0.13mg/L (96h, Pimephales promelas)	-	-
delta-Muscenone	31 mg/L (OECD 201; Desmodesmus subspicatus; 72 h)	0.22 mg/L (OECD 203; Oncorhynchus mykiss; 96 h)	-	0.39 mg/L (OECD 202; Daphnia magna; 48 h)
Isoeugenyl Methyl Ether	-	-	-	25 mg/l (DIN 38412; 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)
delta Damascone	-	0.97 mg/L(OECD 203; Oryzias latipes; 96h)	241 mg/L (OECD 209; 3 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; Pseudokirchnerella subcapitata; 3 d)	-	> 0.5 mg/L (//OECD 211; Daphnia magna; 22 d)	4168 mg/L (Pseudomonas putida; 0.75 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)	-
Benzyl Acetate	52 mg/L (OECD 201; Desmodesmus subspicatus; 3 d)	0.92 mg/L (Oryzias latipes; 28 d)	10 mg/L (OECD 202; Daphnia magna; 2 d)	-	-
Hydroxycitronellal	42.36 mg/L (OECD 201; Desmodesmus subspicatus; 3 d)	-	-	> 1000 mg/L (OECD 209; 0.5 h)	-

2-T-Butylcyclohexyl Acetate	0.57 mg/L (OECD 201; Desmodesmus subspicatus; 3 d)	0.8 mg/L (OECD 210; Pimephales promelas; 33 d)	-	100 mg/L (OECD 301 F; activated sludge of a predominantly domestic sewage; 61 d)	-
Limonene	50 mg/L (OECD 201; Desmodesmus subspicatus; 3 d)	0.19 - 0.059 mg/L (OECD 212; Pimephales promelas; 8 d)	-	18 mg/L (OECD 209; 0.125 d)	-
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)	-
Anisaldehyde	26.7 mg/L (OECD 201; Pseudokirchneriella subcapitata; 3 d)	100 mg/l (DIN 38 412, part L15; Leuciscus idus; 4 d)	0.71 mg/L (OECD 211; Daphnia magna; 21 d)	450 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)	-
Alpha-Isomethyl Ionone	10 mg/L (OECD 201; Desmodesmus subspicatus; 72 h)	7.8 mg/L (OECD 203; Oncorhynchus mykiss; 4 d)	1 mg/L (OECD 202; Daphnia magna; 2 d)	894.195 mg/L (Colletotrichum musae DAR 24962; 10 d)	-
Citronellol	1.1 mg/L (Scenedesmus subspicatus; 3 d)	4.6 mg/L (German standard DIN 38 412, part L15.; Leuciscus idus; 4 d)	3.1 mg/L (EU Directive 79/831/EEC, Annex V, part C.; Daphnia magna; 2 d)	580 mg/L (DIN 38412, Part 27; Pseudomonas putida; 0.02083 d)	-
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)	-
Dihydro Pentamethylindanone	1.4 mg/L (OECD 201; Desmodesmus subspicatus; 3 d)	-	-	-	-
Heliotropine	1.1 mg/L (OECD 201; Pseudokirchneriella subcapitata; 3 d)	1.6 mg/L (OECD 203; Cyprinus carpio; 4 d)	22 mg/L (OECD 202; Daphnia magna; 2 d)	-	-
Methylcyclopentadecenone	30 mg/L (OECD 201; Desmodesmus subspicatus; 3 d)	0.13 mg/L (OECD 212; Pimephales promelas; 10 d)	-	-	-
Nerol	3.48 mg/L (OECD 201; Pseudokirchneriella subcapitata; 3 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)	-

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)	-	-	-
Linalool - 78-70-6	64.2% O2; OECD 301 D; 28 d	-	-	-
Benzyl Acetate - 140-11-4	100.9 %CO2; OECD 301 B; 28 d	-	-	-
Hydroxycitronellal - 107-75-5	80 - 90%; OECD 301 F; O2; 21 d	-	-	-
cis-2-tert-Butylcyclohexyl acetate - 20298-69-5	43%O2; OECD 301 F; 28 d	-	-	-
D-Limonene - 5989-27-5	71.4%CO2; OECD 301 B; 28 d	-	-	-
Linalyl Acetate - 115-95-7	≥ 70 - ≤ 80O2; OECD 301 F; 28 d	-	-	-
Anisic Aldehyde - 123-11-5	97%DOC; OECD 301 E; 6 d	-	-	-
Phenethyl Alcohol - 60-12-8	106.3%; OECD 301 B; 28 d	-	-	-
Isomethyl Alpha Ionone - 127-51-5	42.51%O2; OECD 301 D; 28 d	-	-	-

Citronellol - 106-22-9	80 - 90% O2; 28 d	-	-	-
Geraniol - 106-24-1	90 - 100%; OECD 301 A; 3 d	-	-	-
Cashmeran - 33704-61-9	0% O2; //OECD 301 C; 28 d	-	-	-
Heliotropine - 120-57-0	82%O2; OECD 301 F; 28 d	-	-	-
delta-Muscenone - 63314-79-4	78.8% CO2; OECD 301 B; 29 d	-	-	-
Isoeugenyl Methyl Ether - 93-16-3	100 % (OECD 301F; Manometric respiration test; activated sludge; : 28 d)	-	-	-
Nerol - 106-25-2	90%; OECD 301 D; O2 consumption; 28 d; 14 day window fulfilled; 28 d	-	-	-
Cyclogalbaniff - 68901-15-5	> 27.98%; OECD 301 D; 28 d	-	-	-

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
PPG-2 Methyl Ether	0.35
Linalool	2.9
Benzyl Acetate	1.96
Hydroxycitronellal	1.68
2-T-Butylcyclohexyl Acetate	4.8
Limonene	4.38
Isobutyl Methyl Tetrahydropyranol	1.65
Linalyl Acetate	3.9
Anisaldehyde	1.56
Phenethyl Alcohol	1.36
Alpha-Isomethyl Ionone	4.288
Citronellol	3.41
Geraniol	2.6
Cis-3-Hexenyl Salicylate	4.8
Dihydro Pentamethylindanone	4.2
Heliotropine	1.2
Allyl Cyclohexylpropionate	4.28
Nerol	2.76
Allyl (cyclohexyloxy)Acetate	2.8

Chemical name	Octanol/water partition coefficient	Bioconcentration factor (BCF)
PPG-2 Methyl Ether	0.004	-
Linalool	2.9	-
Benzyl Acetate	1.96	8
Hydroxycitronellal	1.68	-
2-T-Butylcyclohexyl Acetate	4.8 (OECD 117)	156 L/kg (OECD 305)
Limonene	4.38 (OECD 117)	864.8 L/kg
Linalyl Acetate	3.9 (OECD 107)	174 L/kg
Anisaldehyde	1.56 (OECD 107)	-
Phenethyl Alcohol	0.8 (OECD 117)	-
Alpha-Isomethyl Ionone	4.288 (OECD 117)	-
Citronellol	3.41 (EU Method A.8)	82.59 L/kg
Geraniol	2.6 (OECD 117)	-
Dihydro Pentamethylindanone	4.2	-
Heliotropine	1.2 (OECD 117)	-
Methylcyclopentadecenone	5.522 (OECD 123)	-
Methyl isoeugenol	2.9 (OECD 117)	-
Nerol	2.76 (EU Method A.8)	30.76 L/kg
Allyl (cyclohexyloxy)Acetate	>= 1.04 - <= 1.04	-

12.4. Mobility in soil

Mobility in soil

Chemical name	log Koc
Benzyl Acetate	250
Hydroxycitronellal	10
2-T-Butylcyclohexyl Acetate	1300 (OECD 121)
Limonene	6324 L/kg
Linalyl Acetate	432.4 L/kg
Anisaldehyde	10
Phenethyl Alcohol	31.6
Alpha-Isomethyl Ionone	3061.963 (OECD 121)
Citronellol	70.79
Geraniol	70.79
Dihydro Pentamethylindanone	200
Methylcyclopentadecenone	6182 L/kg
Nerol	94.15
Allyl (cyclohexyloxy)Acetate	152.71

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
Linalool	The substance is not PBT / vPvB
Propanoic Acid, 2-(1,1-Dimethylpropoxy)+	The substance is not PBT / vPvB
Benzyl Acetate	The substance is not PBT / vPvB
Hydroxycitronellal	The substance is not PBT / vPvB
2-T-Butylcyclohexyl Acetate	The substance is not PBT / vPvB
Limonene	The substance is not PBT / vPvB
Isobutyl Methyl Tetrahydropyranol	The substance is not PBT / vPvB
Linalyl Acetate	The substance is not PBT / vPvB
Anisaldehyde	The substance is not PBT / vPvB
Phenethyl Alcohol	The substance is not PBT / vPvB
Alpha-Isomethyl Ionone	The substance is not PBT / vPvB
Citronellol	The substance is not PBT / vPvB
Geraniol	The substance is not PBT / vPvB
Cis-3-Hexenyl Salicylate	The substance is not PBT / vPvB
Dihydro Pentamethylindanone	The substance is not PBT / vPvB
Heliotropine	The substance is not PBT / vPvB
Allyl Cyclohexylpropionate	The substance is not PBT / vPvB
Methylcyclopentadecenone	The substance is not PBT / vPvB
Nerol	The substance is not PBT / vPvB
Allyl (cyclohexyloxy)Acetate	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.(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.	-
Limonene	75.	-
Isobutyl Methyl Tetrahydropyranol	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,

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End of Safety Data Sheet