

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

HIMIX LAUNDRY FRAGRANCES KIRI

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

1.1. Product identifier

Product identifier: **Mixtures**Trade name/designation: **HIMIX LAUNDRY FRAGRANCES KIRI**

Hazard components for labelling

Substance name	Index No.	EC No.	CAS No.
2,6-dimethyloct-7-en-2-ol		242-362-4	18479-58-8
mixture of isomers: 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8-tetramethyl-2-naphthyl)ethan-1-one; 1-(1,2,3,4,5,6,7,8-octahydro-2,3,5,5-tetramethyl-2-naphthyl)ethan-1-one; 1-(1,2,3,5,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one (68155-67-9); 1-(1,2,3,4,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one (68155-66-8)		259-174-3	54464-57-2
cis-2-tert-butylcyclohexylacetate		243-718-1	20298-69-5
dodecan-1-ol		203-982-0	112-53-8
benzoic acid, 2-hydroxy-, hexyl ester		228-408-6	6259-76-3
citronellol		203-375-0	106-22-9
tetrahydro-4-methyl-2-(2-methylpropyl)-2h-pyran-4-ol		405-040-6	63500-71-0
geraniol	603-241-00-5	269-750-6	106-24-1
cinnamyl alcohol		203-212-3	104-54-1
ethanone, 1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthalenyl)-		216-133-4	1506-02-1
2-methylundecanal		203-765-0	110-41-8
(e)-4-(2,6,6-trimethylcyclohexen-1-yl)but-3-en-2-one		232-396-8	8013-90-9
(r)-p-mentha-1,8-diene	601-096-00-2	227-813-5	5989-27-5
delta-1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one (delta-damascone)		275-156-8	71048-82-3
2,2-dimethyl-3-phenyl propan-1-ol		236-400-9	13351-61-6

Other means of identification

Unique Formula Identifier: **SYPO-W0D4-900S-D47R**Product category: **[P] Products**Product No.: **FPF-0000256**

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

Tipo di utilizzo: **PROFESSIONAL**

Relevant identified uses

PC-DET-1.OTH Other laundry detergents

Uses advised against

Uses advised against: **The uses are provided in Section 1.2. Other uses are not recommended unless an assessment is completed, prior to commencement of that use, which demonstrates that the use will be controlled.**

1.3. Details of the supplier of the safety data sheet

Manufacturer

Rubino Chem Srl

Via Vigili del Fuoco Caduti in Servizio, 14/s

70026 Bari - Italia

+39 080 5035348

customerservice@rubinochem.it | www.rubinochem.it

Information contact

Department responsible for information: **Affari Regolatori** | +39 080 5035348 | customerservice@rubinochem.it

1.4. Emergency Telephone Number

Emergency Telephone Number: **080 5035348** (Only available during office hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard classes and hazard categories

Physical Hazards

Not hazardous according to classification

Health Hazards

Skin Irrit. 2 | H315

Eye Irrit. 2 | H319

Skin Sens. 1 | H317

Environmental hazards

Aquatic Chronic 3 | H412

Additional hazards

Not hazardous according to classification

Additional information

1.000 percent of the mixture consists of ingredient(s) of unknown acute toxicity (oral).

Contains 4.726 % of components with unknown hazards to the aquatic environment.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms: **GHS07**



Signal word: **[WNG] Warning**



Hazard Statements

Hazard statements for health hazards

[H315] Causes skin irritation.

[H317] May cause an allergic skin reaction.

[H319] Causes serious eye irritation.

Hazard statements for environmental hazards

[H412] Harmful to aquatic life with long lasting effects.

Classification procedure: Calculation method.

Precautionary Statements

General

[P103] Read carefully and follow all instructions.

Prevention

[P261] Avoid breathing dust/fume/gas/mist/vapours/spray.

[P264] Wash hands thoroughly after handling.

[P272] Contaminated work clothing should not be allowed out of the workplace.

[P273] Avoid release to the environment.

[P280] Wear protective gloves/protective clothing and eye/face protection.

Response

[P302+P352] IF ON SKIN: Wash with plenty of soap and water.

[P305+P351+P338] IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

[P321] Specific treatment (see ... on this label).

[P332+P313] If skin irritation occurs: Get medical advice/attention.

[P333+P313] If skin irritation or rash occurs: Get medical advice/attention.

[P337+P313] If eye irritation persists: Get medical advice/attention.

[P362+P364] Take off contaminated clothing and wash it before reuse.

Disposal

[P501] Dispose of contents/container to hazardous waste disposal.

Special rules for supplemental label elements for certain mixtures

[EUH208] Contains 1-(2,3,8,8-tetramethyl-1,3,4,5,6,7-hexahydronaphthalen-2-yl)ethanone | hexyl 2-hydroxybenzoate | 3,7-dimethyloct-6-en-1-ol | (2E)-3,7-dimethylocta-2,6-dien-1-ol. May produce an allergic reaction.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1. Substances

not applicable

3.2. Mixtures

	Concentration % [weight]	Substance name	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL), M-factor, Acute toxicity estimate (ATE)
CAS No.: 18479-58-8 EC No.: 242-362-4 Index No.: REACH No.: 01-2119457274-37	7 < c <= 13	2,6-DIMETHYLOCT-7-EN-2-OL	Skin Irrit. 2, Eye Irrit. 2, STOT SE 3 [H315] Causes skin irritation. [H319] Causes serious eye irritation. [H336] May cause drowsiness or dizziness.	

	Concentration % [weight]	Substance name	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL), M-factor, Acute toxicity estimate (ATE)
CAS No.: EC No.: 915-730-3 Index No.: REACH No.: 01-2119489989-04	1 < c ≤ 5	MIXTURE OF ISOMERS: 1-(1,2,3,4,5,6,7,8-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE; 1-(1,2,3,4,5,6,7,8-OCTAHYDRO-2,3,5,5-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE; 1-(1,2,3,5,6,7,8,8A-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE (68155-67-9); 1-(1,2,3,4,6,7,8,8A-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE (68155-66-8)	Skin Irrit. 2, Skin Sens. 1B, Aquatic Chronic 2 [H315] Causes skin irritation. [H317] May cause an allergic skin reaction. [H411] Toxic to aquatic life with long lasting effects.	
CAS No.: 20298-69-5 EC No.: 243-718-1 Index No.: REACH No.: 01-2119970713-33	1 < c ≤ 5	CIS-2-TERT-BUTYLCYCLOHEXYLACETATE	Aquatic Chronic 2 [H411] Toxic to aquatic life with long lasting effects.	
CAS No.: 112-53-8 EC No.: 203-982-0 Index No.: REACH No.: 01-2119485976-15	1 < c ≤ 5	DODECAN-1-OL	Eye Irrit. 2, Aquatic Acute 1, Aquatic Chronic 2 [H319] Causes serious eye 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.	
CAS No.: 6259-76-3 EC No.: 228-408-6 Index No.: REACH No.: 01-2119638275-36	1 < c ≤ 5	BENZOIC ACID, 2-HYDROXY-, HEXYL ESTER	Skin Sens. 1, Repr. 2 [H361d] Suspected of damaging the unborn child. [H317] May cause an allergic skin reaction. ATP22	
CAS No.: 106-22-9 EC No.: 203-375-0 Index No.: REACH No.: 01-2119453995-23-XXXX	1 < c ≤ 5	CITRONELLOL	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2 [H319] Causes serious eye irritation. [H317] May cause an allergic skin reaction. [H315] Causes skin irritation. [H411] Toxic to aquatic life with long lasting effects.	
CAS No.: 63500-71-0 EC No.: 405-040-6 Index No.: REACH No.: 01-0000015458-64	1 < c ≤ 5	TETRAHYDRO-4-METHYL-2-(2-METHYLPROPYL)-2H-PYRAN-4-OL	Eye Irrit. 2 [H319] Causes serious eye irritation.	
CAS No.: 106-24-1 EC No.: 269-750-6 Index No.: REACH No.: 01-2119552430-49	0.5 ≤ c ≤ 1.5	GERANIOL	Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1 [H317] May cause an allergic skin reaction. [H318] Causes serious eye damage. [H315] Causes skin irritation. ATP15	
CAS No.: 104-54-1 EC No.: 203-212-3 Index No.: REACH No.: 01-2119934496-29	0.1 ≤ c ≤ 1	CINNAMYL ALCOHOL	Skin Sens. 1, Acute Tox. 4, Aquatic Chronic 2 [H317] May cause an allergic skin reaction. [H302] Harmful if swallowed. [H411] Toxic to aquatic life with long lasting effects.	
CAS No.: 1506-02-1 EC No.: 216-133-4 Index No.: REACH No.: 01-2119539433-40	0.1 ≤ c ≤ 1	ETHANONE, 1-(5,6,7,8-TETRAHYDRO-3,5,5,6,8,8-HEXAMETHYL-2-NAPHTHALENYL)-	Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 1 [H302] Harmful if swallowed. [H410] Very toxic to aquatic life with long lasting effects. [H400] Very toxic to aquatic life.	

	Concentration % [weight]	Substance name	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL), M-factor, Acute toxicity estimate (ATE)
CAS No.: 110-41-8 EC No.: 203-765-0 Index No.: REACH No.: 01-2119969443-29	0.1 ≤ c ≤ 1	2-METHYLUNDECANAL	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 3 [H315] Causes skin irritation. [H317] May cause an allergic skin reaction. [H319] Causes serious eye irritation. [H400] Very toxic to aquatic life. [H410] Very toxic to aquatic life with long lasting effects.	
CAS No.: 79-77-6 EC No.: 201-224-3 Index No.: REACH No.: 01-2119449921-34	0.1 ≤ c ≤ 1	(E)-4-(2,6,6-TRIMETHYLCYCLOHEXEN-1-YL)BUT-3-EN-2-ONE	Aquatic Acute 1, Aquatic Chronic 2 [H400] Very toxic to aquatic life. [H411] Toxic to aquatic life with long lasting effects.	
CAS No.: 5989-27-5 EC No.: 227-813-5 Index No.: REACH No.: 01-2119529223-47	0.1 ≤ c ≤ 1	(R)-P-MENTHA-1,8-DIENE	Flam. Liq. 3, Skin Irrit. 2, Skin Sens. 1B, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 3 [H226] Flammable liquid and vapour. [H315] Causes skin irritation. [H317] May cause an allergic skin reaction. [H304] May be fatal if swallowed and enters airways. [H400] Very toxic to aquatic life. [H412] Harmful to aquatic life with long lasting effects. ATP17	M=1
CAS No.: 71048-82-3 EC No.: 275-156-8 Index No.: REACH No.: 01-2119535122-53	0.1 ≤ c ≤ 1	DELTA-1-(2,6,6-TRIMETHYL-3-CYCLOHEXEN-1-YL)-2-BUTEN-1-ONE (DELTA-DAMASCONE)	Skin Irrit. 2, Skin Sens. 1, Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 1 [H302] Harmful if swallowed. [H315] Causes skin irritation. [H317] May cause an allergic skin reaction. [H400] Very toxic to aquatic life. [H410] Very toxic to aquatic life with long lasting effects.	
CAS No.: 13351-61-6 EC No.: 236-400-9 Index No.: REACH No.: 01-2120110185-71	0.1 ≤ c ≤ 1	2,2-DIMETHYL-3-PHENYL PROPAN-1-OL	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1B, Acute Tox. 4, Aquatic Chronic 3 [H302] Harmful if swallowed. [H315] Causes skin irritation. [H317] May cause an allergic skin reaction. [H319] Causes serious eye irritation. [H412] Harmful to aquatic life with long lasting effects.	

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures



General information

Do not leave affected person unattended. Remove victim out of the danger area.

Following inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

Following skin contact

After contact with skin, wash immediately with plenty of water and soap. In case of skin reactions, consult a physician.

Wash immediately with: Water

Following eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Following ingestion

Do NOT induce vomiting. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

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

Symptoms

No known symptoms to date.

The following symptoms may occur:

Allergic reactions. Respiratory complaints

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

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media



Suitable extinguishing media

Dry extinguishing powder. Carbon dioxide (CO₂). Water mist

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

No information available.

5.3. Advice for firefighters

Wear full chemical protective clothing.

5.4. Additional information

Move undamaged containers from immediate hazard area if it can be done safely. Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen. Use water spray jet to protect personnel and to cool endangered containers. Do not allow run-off from fire-fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures



For non-emergency personnel

Personal precautions: Use personal protection equipment. Special danger of slipping by leaking/spilling product.

For emergency responders

Personal protection equipment: Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2. Environmental precautions

Ensure all waste water is collected and treated via a waste water treatment plant. Make sure spills can be contained, e.g. in sump pallets or kerbed areas. Retain contaminated washing water and dispose it.

6.3. Methods and material for containment and cleaning up

For containment

No information available.

For cleaning up

Suitable material for diluting or neutralising: Water

6.4. Reference to other sections

Safe handling: see section 7. Disposal: see section 13. Personal protection equipment: see section 8.

6.5. Additional information

Clear spills immediately.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling

Protective measures

Advice on safe handling

Wear personal protective clothing (see section 8).

Avoid: Inhalation of vapours or spray/mists. Skin contact. Eye contact

Measures to prevent fire

Measures to prevent aerosol and dust generation

Ensure sufficient ventilation when re-packing damaged packages.

Environmental precautions

Shafts and sewers must be protected from entry of the product.

Specific requirements or handling rules

Further information

Advices on general occupational hygiene

Wash contaminated clothing prior to re-use.. Wash hands and face before breaks and after work and take a shower if necessary.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Ensure adequate ventilation of the storage area.

Requirements for storage rooms and vessels

Advice on joint storage

Further information on storage conditions

General information

No information available.

Storage temperature

7.3. Specific end uses

Recommendation

Industrial sector specific solutions

Refer to the industry guidance prepared by Concawe/Cefic/EFCG for advice on the confirmation of strictly controlled conditions available from: <https://cefic.org>

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
OELV (Occupational exposure limit values)

PROPAN-2-OL (CAS: 67-63-0) (EC: 200-661-7)

Limit value type (country of origin)	Long-term occupational exposure limit value	Short-term occupational exposure limit value	Source	Remark
Australia	400 ppm	500 ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
Australia	983 mg/m ³	1230 mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
Austria	200 ppm	800 ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
Austria	500 mg/m ³	2000 mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
Belgium	200 ppm	400 (1) ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
Belgium	500 mg/m ³	1000 (1) mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
Canada - Ontario	200 ppm	400 ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
Canada - Québec	200 ppm	400 (1) ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
Denmark	200 ppm	400 ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
Denmark	490 mg/m ³	980 mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
Finland	200 ppm	250 (1) ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
Finland	500 mg/m ³	620 (1) mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
France		400 ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
France		980 mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
Germany (AGS)	200 ppm	400 (1) ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
Germany (AGS)	500 mg/m ³	1000 (1) mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
Germany (DFG)	200 ppm	400 (1) ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
Germany (DFG)	500 mg/m ³	1000 (1) mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
Hungary	500 (1) mg/m ³	1000 (1)(2) mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) Skin (2) 15 minutes average value
Ireland	200 ppm	400 (1) ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes reference period
Japan (MHLW)	200 ppm		GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
Japan (JSOH)	400 (1) ppm		GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) Occupational exposure limit ceiling: Reference value to the maximal exposure concentration of the substance during a working day
Japan (JSOH)	980 (1) mg/m ³		GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) Occupational exposure limit ceiling: Reference value to the maximal exposure concentration of the substance during a working day
Latvia	350 mg/m ³	600 (1) mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
New Zealand	400 ppm	500 ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	

Limit value type (country of origin)	Long-term occupational exposure limit value	Short-term occupational exposure limit value	Source	Remark
New Zealand	983 mg/m ³	1230 mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
Norway	100 ppm		GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
Norway	245 mg/m ³		GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
People's Republic of China	350 mg/m ³	700 (1) mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
Poland	900 (1) mg/m ³	1200 (1)(2) mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) Skin (2) 15 minutes average value
Romania	81 ppm	203 (1) ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
Romania	200 mg/m ³	500 (1) mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
Singapore	400 ppm	500 ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
Singapore	983 mg/m ³	1230 mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
South Africa	400 ppm	800 (1) ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
South Africa Mining	400 ppm	500 (1) ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
South Africa Mining	980 mg/m ³	1225 (1) mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
South Korea	200 ppm	400 (1) ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
Spain	200 ppm	400 ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
Spain	500 mg/m ³	1000 mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
Sweden	150 ppm	250 (1) ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
Sweden	350 mg/m ³	600 (1) mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
Switzerland	200 ppm	400 ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
Switzerland	500 mg/m ³	1000 mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
USA - NIOSH	400 ppm	500 (1) ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
USA - NIOSH	980 mg/m ³	1225 (1) mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
USA - OSHA	400 ppm		GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
USA - OSHA	980 mg/m ³		GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
United Kingdom	400 ppm	500 (1) ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value

OELV (Occupational exposure limit values)

(R)-P-MENTHA-1,8-DIENE (CAS: 5989-27-5) (EC: 227-813-5)

Limit value type (country of origin)	Long-term occupational exposure limit value	Short-term occupational exposure limit value	Source	Remark
Finland	25 ppm	50 (1) ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
Finland	140 mg/m ³	280 (1) mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
Germany (AGS)	5 (1) ppm	20 (1)(2) ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) Skin (2) 15 minutes average value

Limit value type (country of origin)	Long-term occupational exposure limit value	Short-term occupational exposure limit value	Source	Remark
Germany (AGS)	28 (1) mg/m ³	110 (1)(2) mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) Skin (2) 15 minutes average value
Germany (DFG)	5 (1) ppm	20 (1)(2) ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) Skin (2) 15 minutes average value
Germany (DFG)	28 (1) mg/m ³	112 (1)(2) mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) Skin (2) 15 minutes average value
Norway	25 ppm		GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
Norway	140 mg/m ³		GESTIS International Limit Values (limitvalue.ifa.dguv.de)	
Spain	30 (1) ppm		GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) Skin
Spain	168 (1) mg/m ³		GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) Skin
Switzerland	7 ppm	14 (1) ppm	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value
Switzerland	40 mg/m ³	80 (1) mg/m ³	GESTIS International Limit Values (limitvalue.ifa.dguv.de)	(1) 15 minutes average value

BLV (Biological limit values)

No information available.

DNEL-/PNEC-values

DNEL (Derived No Effect Level) | Worker

2,6-DIMETHYLOCT-7-EN-2-OL (CAS: 18479-58-8) (EC: 242-362-4)

Type	Value	Source	Remark
Acute – dermal, local effects	Low hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	(Low hazard (no threshold derived))	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	7 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, systemic effects	24.7 mg/m ³	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Consumer

2,6-DIMETHYLOCT-7-EN-2-OL (CAS: 18479-58-8) (EC: 242-362-4)

Type	Value	Source	Remark
Acute – oral, systemic effects	Low hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.
Long-term – oral, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, local effects	Low hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	2.5 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	4.35 mg/m ³	ECHA/IUCLID	Extrapolation.

PNEC (Predicted No-Effect Concentration)

2,6-DIMETHYLOCT-7-EN-2-OL (CAS: 18479-58-8) (EC: 242-362-4)

PNEC type	Value	Source	Remark
aquatic, freshwater	27.8 µg/L	ECHA/IUCLID	Extrapolation.
aquatic, marine water	2.78 µg/L	ECHA/IUCLID	Extrapolation.
aquatic, intermittent release	278 µg/L	ECHA/IUCLID	Extrapolation.
sediment, freshwater	594 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
sediment, marine water	59.4 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
soil	103 µg/kg soil dw	ECHA/IUCLID	Extrapolation.
sewage treatment plant	10 mg/L	ECHA/IUCLID	Extrapolation.
air	No hazard identified	ECHA/IUCLID	Extrapolation.
secondary poisoning	111 mg/kg food	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Worker

MIXTURE OF ISOMERS: 1-(1,2,3,4,5,6,7,8-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE; 1-(1,2,3,4,5,6,7,8-OCTAHYDRO-2,3,5,5-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE; 1-(1,2,3,5,6,7,8,8A-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE (68155-67-9); 1-(1,2,3,4,6,7,8,8A-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE (68155-66-8) (CAS:) (EC: 915-730-3)

Type	Value	Source	Remark
Acute – dermal, local effects		ECHA/IUCLID	
Acute – dermal, systemic effects		ECHA/IUCLID	
Long-term – dermal, local effects		ECHA/IUCLID	
Long-term – dermal, systemic effects	28.7 mg/kg bw/day	ECHA/IUCLID	
Acute – inhalation, local effects		ECHA/IUCLID	
Acute – inhalation, systemic effects		ECHA/IUCLID	
Long-term – inhalation, local effects		ECHA/IUCLID	
Long-term – inhalation, systemic effects	30 mg/m ³	ECHA/IUCLID	

DNEL (Derived No Effect Level) | Consumer

MIXTURE OF ISOMERS: 1-(1,2,3,4,5,6,7,8-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE; 1-(1,2,3,4,5,6,7,8-OCTAHYDRO-2,3,5,5-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE; 1-(1,2,3,5,6,7,8,8A-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE (68155-67-9); 1-(1,2,3,4,6,7,8,8A-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE (68155-66-8) (CAS:) (EC: 915-730-3)

Type	Value	Source	Remark
Acute – oral, systemic effects		ECHA/IUCLID	
Long-term – oral, systemic effects		ECHA/IUCLID	
Acute – dermal, local effects		ECHA/IUCLID	
Acute – dermal, systemic effects	17.2 mg/kg bw/day	ECHA/IUCLID	
Long-term – dermal, local effects		ECHA/IUCLID	
Long-term – dermal, systemic effects		ECHA/IUCLID	
Acute – inhalation, local effects		ECHA/IUCLID	
Acute – inhalation, systemic effects	9 mg/m ³	ECHA/IUCLID	

PNEC (Predicted No-Effect Concentration)

MIXTURE OF ISOMERS: 1-(1,2,3,4,5,6,7,8-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE; 1-(1,2,3,4,5,6,7,8-OCTAHYDRO-2,3,5,5-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE; 1-(1,2,3,5,6,7,8,8A-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE (68155-67-9); 1-(1,2,3,4,6,7,8,8A-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE (68155-66-8) (CAS:) (EC: 915-730-3)

PNEC type	Value	Source	Remark
aquatic, freshwater	0.0044 mg/L	ECHA/IUCLID	
aquatic, marine water	0.00044 mg/L	ECHA/IUCLID	

PNEC type	Value	Source	Remark
aquatic, intermittent release		ECHA/IUCLID	
sediment, freshwater	0.75 mg/kg sediment dw	ECHA/IUCLID	
sediment, marine water	3.73 mg/kg sediment dw	ECHA/IUCLID	
soil	2.7 mg/kg soil dw	ECHA/IUCLID	
sewage treatment plant	10 mg/L	ECHA/IUCLID	
air		ECHA/IUCLID	
secondary poisoning	26.7 mg/kg food	ECHA/IUCLID	

DNEL (Derived No Effect Level) | Worker

CIS-2-TERT-BUTYLCYCLOHEXYLACETATE (CAS: 20298-69-5) (EC: 243-718-1)

No information available.

DNEL (Derived No Effect Level) | Consumer

CIS-2-TERT-BUTYLCYCLOHEXYLACETATE (CAS: 20298-69-5) (EC: 243-718-1)

No information available.

PNEC (Predicted No-Effect Concentration)

CIS-2-TERT-BUTYLCYCLOHEXYLACETATE (CAS: 20298-69-5) (EC: 243-718-1)

No information available.

DNEL (Derived No Effect Level) | Worker

DODECAN-1-OL (CAS: 112-53-8) (EC: 203-982-0)

Type	Value	Source	Remark
Acute – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	89 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, local effects	155 mg/m ³	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, systemic effects	313 mg/m ³	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Consumer

DODECAN-1-OL (CAS: 112-53-8) (EC: 203-982-0)

Type	Value	Source	Remark
Acute – oral, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – oral, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	44.5 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	77 mg/m ³	ECHA/IUCLID	Extrapolation.

PNEC (Predicted No-Effect Concentration)

DODECAN-1-OL (CAS: 112-53-8) (EC: 203-982-0)

PNEC type	Value	Source	Remark
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aquatic, freshwater	1.3 µg/L	ECHA/IUCLID	Extrapolation.
aquatic, marine water	130 ng/L	ECHA/IUCLID	Extrapolation.
aquatic, intermittent release		ECHA/IUCLID	Extrapolation.
sediment, freshwater	No hazard identified	ECHA/IUCLID	Extrapolation.
sediment, marine water	No hazard identified	ECHA/IUCLID	Extrapolation.
soil	132 µg/kg soil dw	ECHA/IUCLID	Extrapolation.
sewage treatment plant	No hazard identified	ECHA/IUCLID	Extrapolation.
air	No hazard identified	ECHA/IUCLID	Extrapolation.
secondary poisoning		ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Worker

BENZOIC ACID, 2-HYDROXY-, HEXYL ESTER (CAS: 6259-76-3) (EC: 228-408-6)

Type	Value	Source	Remark
Acute – dermal, local effects	885 µg/cm ²	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	885 µg/cm ²	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	6.4 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, systemic effects	1.7 mg/m ³	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Consumer

BENZOIC ACID, 2-HYDROXY-, HEXYL ESTER (CAS: 6259-76-3) (EC: 228-408-6)

Type	Value	Source	Remark
Acute – oral, systemic effects	442.5 µg/cm ²	ECHA/IUCLID	Extrapolation.
Long-term – oral, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, local effects	442.5 µg/cm ²	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	3.2 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	400 µg/m ³	ECHA/IUCLID	Extrapolation.

PNEC (Predicted No-Effect Concentration)

BENZOIC ACID, 2-HYDROXY-, HEXYL ESTER (CAS: 6259-76-3) (EC: 228-408-6)

PNEC type	Value	Source	Remark
aquatic, freshwater	357 ng/L	ECHA/IUCLID	Extrapolation.
aquatic, marine water	35.7 ng/L	ECHA/IUCLID	Extrapolation.
aquatic, intermittent release	3.57 µg/L	ECHA/IUCLID	Extrapolation.
sediment, freshwater	272 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
sediment, marine water	27.2 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
soil	54.2 µg/kg soil dw	ECHA/IUCLID	Extrapolation.

PNEC type	Value	Source	Remark
sewage treatment plant	10 mg/L	ECHA/IUCLID	Extrapolation.
air	No hazard identified	ECHA/IUCLID	Extrapolation.
secondary poisoning		ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Worker
 CITRONELLOL (CAS: 106-22-9) (EC: 203-375-0)

Type	Value	Source	Remark
Acute – dermal, local effects	2.95 mg/cm ²	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	-	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	-	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	327.4 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	10 mg/m ³	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	-	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, local effects	10 mg/m ³	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, systemic effects	161.6 mg/m ³	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Consumer
 CITRONELLOL (CAS: 106-22-9) (EC: 203-375-0)

Type	Value	Source	Remark
Acute – oral, systemic effects	2.95 mg/cm ²	ECHA/IUCLID	Extrapolation.
Long-term – oral, systemic effects	-	ECHA/IUCLID	Extrapolation.
Acute – dermal, local effects	-	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	196.4 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	10 mg/m ³	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	-	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	10 mg/m ³	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	47.8 mg/m ³	ECHA/IUCLID	Extrapolation.

PNEC (Predicted No-Effect Concentration)
 CITRONELLOL (CAS: 106-22-9) (EC: 203-375-0)

PNEC type	Value	Source	Remark
aquatic, freshwater	2.4 µg/L	ECHA/IUCLID	Extrapolation.
aquatic, marine water	240 ng/L	ECHA/IUCLID	Extrapolation.
aquatic, intermittent release	24 µg/L	ECHA/IUCLID	Extrapolation.
sediment, freshwater	25.6 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
sediment, marine water	2.56 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
soil	3.71 µg/kg soil dw	ECHA/IUCLID	Extrapolation.
sewage treatment plant	580 mg/L	ECHA/IUCLID	Extrapolation.
air		ECHA/IUCLID	Extrapolation.
secondary poisoning		ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Worker
 TETRAHYDRO-4-METHYL-2-(2-METHYLPROPYL)-2H-PYRAN-4-OL (CAS: 63500-71-0) (EC: 405-040-6)

No information available.

DNEL (Derived No Effect Level) | Consumer

TETRAHYDRO-4-METHYL-2-(2-METHYLPROPYL)-2H-PYRAN-4-OL (CAS: 63500-71-0) (EC: 405-040-6)

No information available.

PNEC (Predicted No-Effect Concentration)

TETRAHYDRO-4-METHYL-2-(2-METHYLPROPYL)-2H-PYRAN-4-OL (CAS: 63500-71-0) (EC: 405-040-6)

No information available.

DNEL (Derived No Effect Level) | Worker

GERANIOL (CAS: 106-24-1) (EC: 269-750-6)

Type	Value	Source	Remark
Acute – dermal, local effects	Medium hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	11.8 mg/cm ²	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	4.2 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, systemic effects	11.8 mg/m ³	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Consumer

GERANIOL (CAS: 106-24-1) (EC: 269-750-6)

Type	Value	Source	Remark
Acute – oral, systemic effects	Medium hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.
Long-term – oral, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, local effects	1.18 mg/cm ²	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	2.5 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	3.5 mg/m ³	ECHA/IUCLID	Extrapolation.

PNEC (Predicted No-Effect Concentration)

GERANIOL (CAS: 106-24-1) (EC: 269-750-6)

PNEC type	Value	Source	Remark
aquatic, freshwater	10.8 µg/L	ECHA/IUCLID	Extrapolation.
aquatic, marine water	1.08 µg/L	ECHA/IUCLID	Extrapolation.
aquatic, intermittent release	108 µg/L	ECHA/IUCLID	Extrapolation.
sediment, freshwater	115 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
sediment, marine water	11.5 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
soil	16.7 µg/kg soil dw	ECHA/IUCLID	Extrapolation.
sewage treatment plant	700 µg/L	ECHA/IUCLID	Extrapolation.
air	No hazard identified	ECHA/IUCLID	Extrapolation.
secondary poisoning	()	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Worker

3A,4,5,6,7,7A-HEXAHYDRO-4,7-METHANO-1H-INDENYL PROPIONATE (CAS: 68912-13-0) (EC: 272-805-7)

Type	Value	Source	Remark
Acute – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Consumer

3A,4,5,6,7,7A-HEXAHYDRO-4,7-METHANO-1H-INDENYL PROPIONATE (CAS: 68912-13-0) (EC: 272-805-7)

Type	Value	Source	Remark
Acute – oral, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – oral, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.

PNEC (Predicted No-Effect Concentration)

3A,4,5,6,7,7A-HEXAHYDRO-4,7-METHANO-1H-INDENYL PROPIONATE (CAS: 68912-13-0) (EC: 272-805-7)

PNEC type	Value	Source	Remark
aquatic, freshwater	91 µg/L	ECHA/IUCLID	Extrapolation.
aquatic, marine water	9.1 µg/L	ECHA/IUCLID	Extrapolation.
aquatic, intermittent release		ECHA/IUCLID	Extrapolation.
sediment, freshwater	12.2 mg/kg sediment dw	ECHA/IUCLID	Extrapolation.
sediment, marine water	1.22 mg/kg sediment dw	ECHA/IUCLID	Extrapolation.
soil	4.4 mg/kg soil dw	ECHA/IUCLID	Extrapolation.
sewage treatment plant	4.8 mg/L	ECHA/IUCLID	Extrapolation.
air	No hazard identified	ECHA/IUCLID	Extrapolation.
secondary poisoning	()	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Worker

PROPAN-2-OL (CAS: 67-63-0) (EC: 200-661-7)

Type	Value	Source	Remark
Acute – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	888 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	1000 mg/m ³	ECHA/IUCLID	Extrapolation.

Type	Value	Source	Remark
Long-term – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, systemic effects	500 mg/m ³	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Consumer
PROPAN-2-OL (CAS: 67-63-0) (EC: 200-661-7)

Type	Value	Source	Remark
Acute – oral, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – oral, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	319 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	178 mg/m ³	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	89 mg/m ³	ECHA/IUCLID	Extrapolation.

PNEC (Predicted No-Effect Concentration)
PROPAN-2-OL (CAS: 67-63-0) (EC: 200-661-7)

PNEC type	Value	Source	Remark
aquatic, freshwater	No hazard identified	ECHA/IUCLID	Extrapolation.
aquatic, marine water	No hazard identified	ECHA/IUCLID	Extrapolation.
aquatic, intermittent release	No hazard identified	ECHA/IUCLID	Extrapolation.
sediment, freshwater	No hazard identified	ECHA/IUCLID	Extrapolation.
sediment, marine water	No hazard identified	ECHA/IUCLID	Extrapolation.
soil	No hazard identified	ECHA/IUCLID	Extrapolation.
sewage treatment plant	No hazard identified	ECHA/IUCLID	Extrapolation.
air	No hazard identified	ECHA/IUCLID	Extrapolation.
secondary poisoning		ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Worker
CINNAMYL ALCOHOL (CAS: 104-54-1) (EC: 203-212-3)

Type	Value	Source	Remark
Acute – dermal, local effects	Low hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	Low hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	Low hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	749 µg/kg bw/day	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, systemic effects	2.64 mg/m ³	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Consumer
CINNAMYL ALCOHOL (CAS: 104-54-1) (EC: 203-212-3)

Type	Value	Source	Remark
Acute – oral, systemic effects	Low hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.

Type	Value	Source	Remark
Long-term – oral, systemic effects	Low hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.
Acute – dermal, local effects	Low hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	268 µg/kg bw/day	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	465 µg/m ³	ECHA/IUCLID	Extrapolation.

PNEC (Predicted No-Effect Concentration)

CINNAMYL ALCOHOL (CAS: 104-54-1) (EC: 203-212-3)

PNEC type	Value	Source	Remark
aquatic, freshwater	7.7 µg/L	ECHA/IUCLID	Extrapolation.
aquatic, marine water	770 ng/L	ECHA/IUCLID	Extrapolation.
aquatic, intermittent release	77 µg/L	ECHA/IUCLID	Extrapolation.
sediment, freshwater	118 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
sediment, marine water	11.8 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
soil	19 µg/kg soil dw	ECHA/IUCLID	Extrapolation.
sewage treatment plant	16.127 mg/L	ECHA/IUCLID	Extrapolation.
air	No hazard identified	ECHA/IUCLID	Extrapolation.
secondary poisoning		ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Worker

ETHANONE, 1-(5,6,7,8-TETRAHYDRO-3,5,5,6,8,8-HEXAMETHYL-2-NAPHTHALENYL)- (CAS: 1506-02-1) (EC: 216-133-4)

Type	Value	Source	Remark
Acute – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	610 µg/kg bw/day	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	525 µg/m ³	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, systemic effects	175 µg/m ³	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Consumer

ETHANONE, 1-(5,6,7,8-TETRAHYDRO-3,5,5,6,8,8-HEXAMETHYL-2-NAPHTHALENYL)- (CAS: 1506-02-1) (EC: 216-133-4)

Type	Value	Source	Remark
Acute – oral, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – oral, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	305 µg/kg bw/day	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	131 µg/m ³	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.

Type	Value	Source	Remark
Acute – inhalation, systemic effects	43.5 µg/m ³	ECHA/IUCLID	Extrapolation.

PNEC (Predicted No-Effect Concentration)

ETHANONE, 1-(5,6,7,8-TETRAHYDRO-3,5,5,6,8,8-HEXAMETHYL-2-NAPHTHALENYL)- (CAS: 1506-02-1) (EC: 216-133-4)

PNEC type	Value	Source	Remark
aquatic, freshwater	2.2 µg/L	ECHA/IUCLID	Extrapolation.
aquatic, marine water	220 ng/L	ECHA/IUCLID	Extrapolation.
aquatic, intermittent release	6.1 µg/L	ECHA/IUCLID	Extrapolation.
sediment, freshwater	1.72 mg/kg sediment dw	ECHA/IUCLID	Extrapolation.
sediment, marine water	345 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
soil	9.9 µg/kg soil dw	ECHA/IUCLID	Extrapolation.
sewage treatment plant	2.2 mg/L	ECHA/IUCLID	Extrapolation.
air	No hazard identified	ECHA/IUCLID	Extrapolation.
secondary poisoning	1.1 mg/kg food	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Worker

2-METHYLUNDECANAL (CAS: 110-41-8) (EC: 203-765-0)

Type	Value	Source	Remark
Acute – dermal, local effects	71.43 mg/cm ²	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	100 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	35.7 mg/cm ²	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	10.46 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	881.58 mg/m ³	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	352.63 mg/m ³	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, local effects	92.21 mg/m ³	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, systemic effects	36.89 mg/m ³	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Consumer

2-METHYLUNDECANAL (CAS: 110-41-8) (EC: 203-765-0)

Type	Value	Source	Remark
Acute – oral, systemic effects	35.71 mg/cm ²	ECHA/IUCLID	Extrapolation.
Long-term – oral, systemic effects	50 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Acute – dermal, local effects	17.86 mg/cm ²	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	5.23 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	217.39 mg/m ³	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	86.96 mg/m ³	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	22.74 mg/m ³	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	9.1 mg/m ³	ECHA/IUCLID	Extrapolation.

PNEC (Predicted No-Effect Concentration)

2-METHYLUNDECANAL (CAS: 110-41-8) (EC: 203-765-0)

PNEC type	Value	Source	Remark
aquatic, freshwater	660 ng/L	ECHA/IUCLID	Extrapolation.
aquatic, marine water	66 ng/L	ECHA/IUCLID	Extrapolation.

PNEC type	Value	Source	Remark
aquatic, intermittent release	1.8 µg/L	ECHA/IUCLID	Extrapolation.
sediment, freshwater	265 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
sediment, marine water	26.5 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
soil	52.6 µg/kg soil dw	ECHA/IUCLID	Extrapolation.
sewage treatment plant	10 mg/L	ECHA/IUCLID	Extrapolation.
air	No hazard identified	ECHA/IUCLID	Extrapolation.
secondary poisoning	116 mg/kg food	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Worker

(E)-4-(2,6,6-TRIMETHYLCYCLOHEXEN-1-YL)BUT-3-EN-2-ONE (CAS: 79-77-6) (EC: 201-224-3)

No information available.

DNEL (Derived No Effect Level) | Consumer

(E)-4-(2,6,6-TRIMETHYLCYCLOHEXEN-1-YL)BUT-3-EN-2-ONE (CAS: 79-77-6) (EC: 201-224-3)

No information available.

PNEC (Predicted No-Effect Concentration)

(E)-4-(2,6,6-TRIMETHYLCYCLOHEXEN-1-YL)BUT-3-EN-2-ONE (CAS: 79-77-6) (EC: 201-224-3)

No information available.

DNEL (Derived No Effect Level) | Worker

(R)-P-MENTHA-1,8-DIENE (CAS: 5989-27-5) (EC: 227-813-5)

Type	Value	Source	Remark
Acute – dermal, local effects	Medium hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	Medium hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	9.5 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, systemic effects	66.7 mg/m ³	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Consumer

(R)-P-MENTHA-1,8-DIENE (CAS: 5989-27-5) (EC: 227-813-5)

Type	Value	Source	Remark
Acute – oral, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – oral, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	4.8 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	16.6 mg/m ³	ECHA/IUCLID	Extrapolation.

PNEC (Predicted No-Effect Concentration)

(R)-P-MENTHA-1,8-DIENE (CAS: 5989-27-5) (EC: 227-813-5)

PNEC type	Value	Source	Remark
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aquatic, freshwater	14 µg/L	ECHA/IUCLID	Extrapolation.
aquatic, marine water	1.4 µg/L	ECHA/IUCLID	Extrapolation.
aquatic, intermittent release		ECHA/IUCLID	Extrapolation.
sediment, freshwater	3.85 mg/kg sediment dw	ECHA/IUCLID	Extrapolation.
sediment, marine water	385 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
soil	763 µg/kg soil dw	ECHA/IUCLID	Extrapolation.
sewage treatment plant	1.8 mg/L	ECHA/IUCLID	Extrapolation.
air	No hazard identified	ECHA/IUCLID	Extrapolation.
secondary poisoning	133 mg/kg food	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Worker

DELTA-1-(2,6,6-TRIMETHYL-3-CYCLOHEXEN-1-YL)-2-BUTEN-1-ONE (DELTA-DAMASCONONE) (CAS: 71048-82-3) (EC: 275-156-8)

Type	Value	Source	Remark
Acute – dermal, local effects	Low hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	116 µg/cm ²	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	2.1 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, systemic effects	1.5 mg/m ³	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Consumer

DELTA-1-(2,6,6-TRIMETHYL-3-CYCLOHEXEN-1-YL)-2-BUTEN-1-ONE (DELTA-DAMASCONONE) (CAS: 71048-82-3) (EC: 275-156-8)

Type	Value	Source	Remark
Acute – oral, systemic effects	Low hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.
Long-term – oral, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, local effects	69 µg/cm ²	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	1.25 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	430 µg/m ³	ECHA/IUCLID	Extrapolation.

PNEC (Predicted No-Effect Concentration)

DELTA-1-(2,6,6-TRIMETHYL-3-CYCLOHEXEN-1-YL)-2-BUTEN-1-ONE (DELTA-DAMASCONONE) (CAS: 71048-82-3) (EC: 275-156-8)

PNEC type	Value	Source	Remark
aquatic, freshwater	7.4 µg/L	ECHA/IUCLID	Extrapolation.
aquatic, marine water	740 ng/L	ECHA/IUCLID	Extrapolation.
aquatic, intermittent release		ECHA/IUCLID	Extrapolation.
sediment, freshwater	958 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
sediment, marine water	95.8 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
soil	187 µg/kg soil dw	ECHA/IUCLID	Extrapolation.

PNEC type	Value	Source	Remark
sewage treatment plant	2.41 mg/L	ECHA/IUCLID	Extrapolation.
air	No hazard identified	ECHA/IUCLID	Extrapolation.
secondary poisoning		ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Worker
DECANAL (CAS: 112-31-2) (EC: 203-957-4)

Type	Value	Source	Remark
Acute – dermal, local effects	35.24 mg/cm ²	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	14.1 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	17.62 mg/cm ²	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	7.05 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	124.28 mg/m ³	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	49.71 mg/m ³	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, local effects	62.14 mg/m ³	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, systemic effects	24.86 mg/m ³	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Consumer
DECANAL (CAS: 112-31-2) (EC: 203-957-4)

Type	Value	Source	Remark
Acute – oral, systemic effects	17.62 mg/cm ²	ECHA/IUCLID	Extrapolation.
Long-term – oral, systemic effects	7.05 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Acute – dermal, local effects	8.81 mg/cm ²	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	3.52 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	30.65 mg/m ³	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	12.26 mg/m ³	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	15.32 mg/m ³	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	6.13 mg/m ³	ECHA/IUCLID	Extrapolation.

PNEC (Predicted No-Effect Concentration)
DECANAL (CAS: 112-31-2) (EC: 203-957-4)

PNEC type	Value	Source	Remark
aquatic, freshwater	1.17 µg/L	ECHA/IUCLID	Extrapolation.
aquatic, marine water	117 ng/L	ECHA/IUCLID	Extrapolation.
aquatic, intermittent release	11.7 µg/L	ECHA/IUCLID	Extrapolation.
sediment, freshwater	97.2 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
sediment, marine water	9.72 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
soil	18.7 µg/kg soil dw	ECHA/IUCLID	Extrapolation.
sewage treatment plant	3.16 mg/L	ECHA/IUCLID	Extrapolation.
air	No hazard identified	ECHA/IUCLID	Extrapolation.
secondary poisoning	313 mg/kg food	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Worker
2,2-DIMETHYL-3-PHENYL PROPAN-1-OL (CAS: 13351-61-6) (EC: 236-400-9)

No information available.

DNEL (Derived No Effect Level) | Consumer

2,2-DIMETHYL-3-PHENYL PROPAN-1-OL (CAS: 13351-61-6) (EC: 236-400-9)

No information available.

PNEC (Predicted No-Effect Concentration)

2,2-DIMETHYL-3-PHENYL PROPAN-1-OL (CAS: 13351-61-6) (EC: 236-400-9)

No information available.

DNEL (Derived No Effect Level) | Worker

BENZYL SALICYLATE (CAS: 118-58-1) (EC: 204-262-9)

Type	Value	Source	Remark
Acute – dermal, local effects	Medium hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	Medium hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	2.21 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, systemic effects	7.8 mg/m ³	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Consumer

BENZYL SALICYLATE (CAS: 118-58-1) (EC: 204-262-9)

Type	Value	Source	Remark
Acute – oral, systemic effects	Medium hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.
Long-term – oral, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – dermal, local effects	Medium hazard (no threshold derived)	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	790 µg/kg bw/day	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	No hazard identified	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	1.37 mg/m ³	ECHA/IUCLID	Extrapolation.

PNEC (Predicted No-Effect Concentration)

BENZYL SALICYLATE (CAS: 118-58-1) (EC: 204-262-9)

PNEC type	Value	Source	Remark
aquatic, freshwater	1.03 µg/L	ECHA/IUCLID	Extrapolation.
aquatic, marine water	103 ng/L	ECHA/IUCLID	Extrapolation.
aquatic, intermittent release	10.3 µg/L	ECHA/IUCLID	Extrapolation.
sediment, freshwater	583 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
sediment, marine water	58.3 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
soil	1.41 mg/kg soil dw	ECHA/IUCLID	Extrapolation.
sewage treatment plant	10 mg/L	ECHA/IUCLID	Extrapolation.
air	No hazard identified	ECHA/IUCLID	Extrapolation.
secondary poisoning	52.7 mg/kg food	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Worker

4-METHYL-3-DECEN-5-OL (CAS: 81782-77-6) (EC: 279-815-0)

Type	Value	Source	Remark
Acute – dermal, local effects	25 mg/cm ²	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	10 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	25 mg/cm ²	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	10 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	88.16 mg/m ³	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	35.26 mg/m ³	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, local effects	88.16 mg/m ³	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, systemic effects	98.7 mg/m ³	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Consumer

4-METHYL-3-DECEN-5-OL (CAS: 81782-77-6) (EC: 279-815-0)

Type	Value	Source	Remark
Acute – oral, systemic effects	12.5 mg/cm ²	ECHA/IUCLID	Extrapolation.
Long-term – oral, systemic effects	5 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Acute – dermal, local effects	12.5 mg/cm ²	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	89.3 µg/kg bw/day	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	21.74 mg/m ³	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	8.7 mg/m ³	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	21.74 mg/m ³	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	14.38 mg/m ³	ECHA/IUCLID	Extrapolation.

PNEC (Predicted No-Effect Concentration)

4-METHYL-3-DECEN-5-OL (CAS: 81782-77-6) (EC: 279-815-0)

PNEC type	Value	Source	Remark
aquatic, freshwater	760 ng/L	ECHA/IUCLID	Extrapolation.
aquatic, marine water	76 ng/L	ECHA/IUCLID	Extrapolation.
aquatic, intermittent release	4 µg/L	ECHA/IUCLID	Extrapolation.
sediment, freshwater	92 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
sediment, marine water	9.2 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
soil	18 µg/kg soil dw	ECHA/IUCLID	Extrapolation.
sewage treatment plant	10 mg/L	ECHA/IUCLID	Extrapolation.
air	No hazard identified	ECHA/IUCLID	Extrapolation.
secondary poisoning	111.1 mg/kg food	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Worker

GERANYL ACETATE (CAS: 105-87-3) (EC: 203-341-5)

Type	Value	Source	Remark
Acute – dermal, local effects	-	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	-	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	-	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	35.5 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	-	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	-	ECHA/IUCLID	Extrapolation.

Type	Value	Source	Remark
Long-term – inhalation, local effects	-	ECHA/IUCLID	Extrapolation.
Long-term – inhalation, systemic effects	62.59 mg/m ³	ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Consumer
 GERANYL ACETATE (CAS: 105-87-3) (EC: 203-341-5)

Type	Value	Source	Remark
Acute – oral, systemic effects	-	ECHA/IUCLID	Extrapolation.
Long-term – oral, systemic effects	-	ECHA/IUCLID	Extrapolation.
Acute – dermal, local effects	-	ECHA/IUCLID	Extrapolation.
Acute – dermal, systemic effects	17.75 mg/kg bw/day	ECHA/IUCLID	Extrapolation.
Long-term – dermal, local effects	-	ECHA/IUCLID	Extrapolation.
Long-term – dermal, systemic effects	-	ECHA/IUCLID	Extrapolation.
Acute – inhalation, local effects	-	ECHA/IUCLID	Extrapolation.
Acute – inhalation, systemic effects	15.4 mg/m ³	ECHA/IUCLID	Extrapolation.

PNEC (Predicted No-Effect Concentration)
 GERANYL ACETATE (CAS: 105-87-3) (EC: 203-341-5)

PNEC type	Value	Source	Remark
aquatic, freshwater	3.72 µg/L	ECHA/IUCLID	Extrapolation.
aquatic, marine water	372 ng/L	ECHA/IUCLID	Extrapolation.
aquatic, intermittent release	37.2 µg/L	ECHA/IUCLID	Extrapolation.
sediment, freshwater	442 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
sediment, marine water	44.2 µg/kg sediment dw	ECHA/IUCLID	Extrapolation.
soil	85.9 µg/kg soil dw	ECHA/IUCLID	Extrapolation.
sewage treatment plant	8 mg/L	ECHA/IUCLID	Extrapolation.
air		ECHA/IUCLID	Extrapolation.
secondary poisoning		ECHA/IUCLID	Extrapolation.

DNEL (Derived No Effect Level) | Worker
 2-PHENOXYETHANOL (CAS: 122-99-6) (EC: 204-589-7)

No information available.

DNEL (Derived No Effect Level) | Consumer
 2-PHENOXYETHANOL (CAS: 122-99-6) (EC: 204-589-7)

No information available.

PNEC (Predicted No-Effect Concentration)
 2-PHENOXYETHANOL (CAS: 122-99-6) (EC: 204-589-7)

No information available.

DNEL (Derived No Effect Level) | Worker
 2,6-OCTADIEN-1-OL, 3,7-DIMETHYL-, 1-ACETATE,(2Z)- (CAS: 141-12-8) (EC: 205-459-2)

No information available.

DNEL (Derived No Effect Level) | Consumer
 2,6-OCTADIEN-1-OL, 3,7-DIMETHYL-, 1-ACETATE,(2Z)- (CAS: 141-12-8) (EC: 205-459-2)

No information available.

PNEC (Predicted No-Effect Concentration)
 2,6-OCTADIEN-1-OL, 3,7-DIMETHYL-, 1-ACETATE,(2Z)- (CAS: 141-12-8) (EC: 205-459-2)

No information available.

DNEL (Derived No Effect Level) | Worker

1,4-CYCLOHEXADIENE, 1-METHYL-4-(1-METHYLETHYL)- (CAS: 99-85-4) (EC: 202-794-6)

No information available.

DNEL (Derived No Effect Level) | Consumer

1,4-CYCLOHEXADIENE, 1-METHYL-4-(1-METHYLETHYL)- (CAS: 99-85-4) (EC: 202-794-6)

No information available.

PNEC (Predicted No-Effect Concentration)

1,4-CYCLOHEXADIENE, 1-METHYL-4-(1-METHYLETHYL)- (CAS: 99-85-4) (EC: 202-794-6)

No information available.

DNEL (Derived No Effect Level) | Worker

2-OXABICYCLO[2.2.2]OCTANE, 1, 3,3-TRIMETHYL- (CAS: 470-82-6) (EC: 207-431-5)

No information available.

DNEL (Derived No Effect Level) | Consumer

2-OXABICYCLO[2.2.2]OCTANE, 1, 3,3-TRIMETHYL- (CAS: 470-82-6) (EC: 207-431-5)

No information available.

PNEC (Predicted No-Effect Concentration)

2-OXABICYCLO[2.2.2]OCTANE, 1, 3,3-TRIMETHYL- (CAS: 470-82-6) (EC: 207-431-5)

No information available.

DNEL (Derived No Effect Level) | Worker

CIS-P-MENTHAN-7-OL (CAS: 13828-37-0) (EC: 237-539-8)

No information available.

DNEL (Derived No Effect Level) | Consumer

CIS-P-MENTHAN-7-OL (CAS: 13828-37-0) (EC: 237-539-8)

No information available.

PNEC (Predicted No-Effect Concentration)

CIS-P-MENTHAN-7-OL (CAS: 13828-37-0) (EC: 237-539-8)

No information available.

DNEL (Derived No Effect Level) | Worker

3-CYCLOHEXENE-1-CARBOXALDEHYDE, 2,4-DIMETHYL- (CAS: 68039-49-6) (EC: 268-264-1)

No information available.

DNEL (Derived No Effect Level) | Consumer

3-CYCLOHEXENE-1-CARBOXALDEHYDE, 2,4-DIMETHYL- (CAS: 68039-49-6) (EC: 268-264-1)

No information available.

PNEC (Predicted No-Effect Concentration)

3-CYCLOHEXENE-1-CARBOXALDEHYDE, 2,4-DIMETHYL- (CAS: 68039-49-6) (EC: 268-264-1)

No information available.

DNEL (Derived No Effect Level) | Worker

HEXYL ALCOHOL (CAS: 111-27-3) (EC: 203-852-3)

Type	Value	Source	Remark
Acute – dermal, local effects		ECHA/IUCLID	
Acute – dermal, systemic effects		ECHA/IUCLID	
Long-term – dermal, local effects	19 µg/cm ²	ECHA/IUCLID	
Long-term – dermal, systemic effects	28 mg/m ³	ECHA/IUCLID	

Type	Value	Source	Remark
Acute – inhalation, local effects		ECHA/IUCLID	
Acute – inhalation, systemic effects		ECHA/IUCLID	
Long-term – inhalation, local effects	210 mg/m ³	ECHA/IUCLID	
Long-term – inhalation, systemic effects	99 mg/m ³	ECHA/IUCLID	

DNEL (Derived No Effect Level) | Consumer
 HEXYL ALCOHOL (CAS: 111-27-3) (EC: 203-852-3)

Type	Value	Source	Remark
Acute – oral, systemic effects		ECHA/IUCLID	
Long-term – oral, systemic effects		ECHA/IUCLID	
Acute – dermal, local effects		ECHA/IUCLID	
Acute – dermal, systemic effects	14 mg/kg bw/day	ECHA/IUCLID	
Long-term – dermal, local effects		ECHA/IUCLID	
Long-term – dermal, systemic effects		ECHA/IUCLID	
Acute – inhalation, local effects		ECHA/IUCLID	
Acute – inhalation, systemic effects	24.5 mg/m ³	ECHA/IUCLID	

PNEC (Predicted No-Effect Concentration)
 HEXYL ALCOHOL (CAS: 111-27-3) (EC: 203-852-3)

PNEC type	Value	Source	Remark
aquatic, freshwater	0.26 mg/L	ECHA/IUCLID	
aquatic, marine water	0.026 mg/L	ECHA/IUCLID	Extrapolation.
aquatic, intermittent release		ECHA/IUCLID	
sediment, freshwater	1.4 mg/kg sediment dw	ECHA/IUCLID	
sediment, marine water	0.14 mg/kg sediment dw	ECHA/IUCLID	
soil	0.12 mg/kg soil dw	ECHA/IUCLID	
sewage treatment plant		ECHA/IUCLID	
air		ECHA/IUCLID	
secondary poisoning		ECHA/IUCLID	

DNEL (Derived No Effect Level) | Worker
 7-METHYL-3-METHYLENEOCTA-1,6-DIENE (CAS: 123-35-3) (EC: 204-622-5)

No information available.

DNEL (Derived No Effect Level) | Consumer
 7-METHYL-3-METHYLENEOCTA-1,6-DIENE (CAS: 123-35-3) (EC: 204-622-5)

No information available.

PNEC (Predicted No-Effect Concentration)
 7-METHYL-3-METHYLENEOCTA-1,6-DIENE (CAS: 123-35-3) (EC: 204-622-5)

No information available.

DNEL (Derived No Effect Level) | Worker
 L-ALPHA-PINENE (CAS: 7785-26-4) (EC: 232-077-3)

No information available.

DNEL (Derived No Effect Level) | Consumer
 L-ALPHA-PINENE (CAS: 7785-26-4) (EC: 232-077-3)

No information available.

PNEC (Predicted No-Effect Concentration)

L-ALPHA-PINENE (CAS: 7785-26-4) (EC: 232-077-3)

No information available.

DNEL (Derived No Effect Level) | Worker

BENZENE, 1-METHYL-4-(1-METHYLETHYL)- (CAS: 99-87-6) (EC: 202-796-7)

No information available.

DNEL (Derived No Effect Level) | Consumer

BENZENE, 1-METHYL-4-(1-METHYLETHYL)- (CAS: 99-87-6) (EC: 202-796-7)

No information available.

PNEC (Predicted No-Effect Concentration)

BENZENE, 1-METHYL-4-(1-METHYLETHYL)- (CAS: 99-87-6) (EC: 202-796-7)

No information available.

DNEL (Derived No Effect Level) | Worker

BICYCLO[3.1.1]HEPTANE, 6,6-DIMETHYL-2-METHYLENE- (CAS: 127-91-3) (EC: 204-872-5)

No information available.

DNEL (Derived No Effect Level) | Consumer

BICYCLO[3.1.1]HEPTANE, 6,6-DIMETHYL-2-METHYLENE- (CAS: 127-91-3) (EC: 204-872-5)

No information available.

PNEC (Predicted No-Effect Concentration)

BICYCLO[3.1.1]HEPTANE, 6,6-DIMETHYL-2-METHYLENE- (CAS: 127-91-3) (EC: 204-872-5)

No information available.

8.2. Exposure controls**Appropriate engineering controls**

No information available.

Personal protection equipment**Eye/face protection**

Suitable eye protection: Spectacles with side protection.

Recommended eye protection articles

No information available.

Other eye protection

No information available.

Remark

No information available.

Skin protection**Hand protection | By short-term hand contact**

Suitable gloves type: Gloves with long cuffs.

Hand protection | By long-term hand contact

No information available.

Recommended glove articles

No information available.

Additional hand protection measures

No information available.

Remark

No information available.

Body protection

Suitable protective clothing Chemical protection clothing.

Recommended protective clothing articles

No information available.

Additional body protection measures

No information available.

Remark

No information available.

Other skin protection

No information available.

Respiratory protection

Respiratory protection necessary at: exposure limit overshoot. Handling larger quantities

According to experience this refers to the following tasks: Weighing and metering activities. Sampling

Recommended respiratory protection articles

No information available.

Additional measures for respiratory protection

No information available.

Remark

No information available.

Thermal hazards

No information available.

Remark

No information available.

Environmental exposure controls

No information available.

Remark

No information available.

Consumer exposure controls

No information available.

8.3. Additional information

No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

	Value	Uncertainty	Method	Source	Remark
Physical state	liquid melt				
Colour	amber				
Odour	characteristic				
Odour threshold	ND				
Melting point/freezing point	ND				
Boiling point or initial boiling point and boiling range	- °C				
Flammability	ND				
Lower and upper explosion limit	ND				
Flash point	> 60 °C				
Auto-ignition temperature	ND				
Decomposition temperature	ND				
pH	in delivery state 6	± 0.5			
Viscosity	ND				
Solubility	ND				

	Value	Uncertainty	Method	Source	Remark
Partition coefficient n-octanol/water (log value)	ND				
Vapour pressure	ND				
Density/Relative density	ND				
Relative vapour density	ND				
Particle characteristics	ND				

9.2. Other information

Information with regard to physical hazard classes

No information available.

Other physical and chemical properties

No information available.

SECTION 10: Stability and Reactivity

10.1. Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2. Chemical stability

No known hazardous reactions.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Stable under recommended storage and handling conditions.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No information available.

10.7. Additional information

No information available.

SECTION 11: Toxicological information

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

Toxicokinetics, metabolism and distribution

Non-human toxicological data

No information available.

Human toxicological data

No information available.

Acute toxicity

Effect dose / -concentration	Value	Species	Method	Symptoms/ delayed effects	Source	Remark
ATEmix Oral	>2000 mg/kg bw					calculated
ATEmix Dermal	>2000 mg/kg bw					calculated
ATEmix Inhalation (vapour)	>20 mg/mL					calculated

Practical experience/human evidence

No information available.

Animal data

2,6-DIMETHYLOCT-7-EN-2-OL (CAS: 18479-58-8) (EC: 242-362-4)

Effect dose / -concentration	Value	Species	Method	Symptoms/ delayed effects	Source	Remark
Acute oral toxicity (LD50)	4100 mg/kg	Rat ()			MSDS	

MIXTURE OF ISOMERS: 1-(1,2,3,4,5,6,7,8-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE; 1-(1,2,3,4,5,6,7,8-OCTAHYDRO-2,3,5,5-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE; 1-(1,2,3,5,6,7,8,8A-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE (68155-67-9); 1-(1,2,3,4,6,7,8,8A-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE (68155-66-8) (CAS:) (EC: 915-730-3)

Effect dose / -concentration	Value	Species	Method	Symptoms/ delayed effects	Source	Remark
Acute oral toxicity (LD50)	> 5000 mg/kg	Rat ()	OECD 401		MSDS	Based on available data, the classification criteria are not met.
Acute dermal toxicity (LD50)	>5000 mg/kg	Rabbit ()	OECD 402		MSDS	Based on available data, the classification criteria are not met.

CIS-2-TERT-BUTYLCYCLOHEXYLACETATE (CAS: 20298-69-5) (EC: 243-718-1)

Effect dose / -concentration	Value	Species	Method	Symptoms/ delayed effects	Source	Remark
Acute oral toxicity (LD50)	4600 mg/kg	Rat ()			MSDS	
Acute dermal toxicity (LD50)	>5000 mg/kg bw	Rabbit ()			MSDS	

BENZOIC ACID, 2-HYDROXY-, HEXYL ESTER (CAS: 6259-76-3) (EC: 228-408-6)

Effect dose / -concentration	Value	Species	Method	Symptoms/ delayed effects	Source	Remark
Acute oral toxicity (LD50)	5000 mg/kg	Rat ()			MSDS	

TETRAHYDRO-4-METHYL-2-(2-METHYLPROPYL)-2H-PYRAN-4-OL (CAS: 63500-71-0) (EC: 405-040-6)

Effect dose / -concentration	Value	Species	Method	Symptoms/ delayed effects	Source	Remark
Acute oral toxicity (LD50)	2000 mg/kg	Rat ()			MSDS	
Acute dermal toxicity (LD50)	5000 mg/kg	Rabbit ()			MSDS	

PROPAN-2-OL (CAS: 67-63-0) (EC: 200-661-7)

Effect dose / -concentration	Value	Species	Method	Symptoms/ delayed effects	Source	Remark
Acute oral toxicity (LD50)	5840 mg/kg bw	Rat ()			ECHA Brief Profile	
Acute inhalation toxicity (vapour) (LC50)	10000 ppm Exposure time: 6h	Rat ()			ECHA Brief Profile	
Acute dermal toxicity (LD50)	16.4 mg/kg bw	Rabbit ()			ECHA Brief Profile	

(E)-4-(2,6,6-TRIMETHYLCYCLOHEXEN-1-YL)BUT-3-EN-2-ONE (CAS: 79-77-6) (EC: 201-224-3)

Effect dose / -concentration	Value	Species	Method	Symptoms/ delayed effects	Source	Remark
Acute oral toxicity (LD50)	>4000 mg/kg	Rat ()			MSDS	
Acute dermal toxicity (LD50)	> 2000 mg/kg	Rat ()	OECD 402		MSDS	

DECANAL (CAS: 112-31-2) (EC: 203-957-4)

Effect dose / -concentration	Value	Species	Method	Symptoms/ delayed effects	Source	Remark
Acute oral toxicity (LD50)	1900 mg/kg bw	Rat (male)				

2,2-DIMETHYL-3-PHENYL PROPAN-1-OL (CAS: 13351-61-6) (EC: 236-400-9)

Effect dose / -concentration	Value	Species	Method	Symptoms/ delayed effects	Source	Remark
Acute oral toxicity (LD50)	1970 mg/kg				MSDS	

BENZYL SALICYLATE (CAS: 118-58-1) (EC: 204-262-9)

Effect dose / -concentration	Value	Species	Method	Symptoms/ delayed effects	Source	Remark
Acute oral toxicity (LD50)	3031 mg/kg	Rat ()	Regulation (EC) No. 440/2008, Annex, B.1 tris		MSDS	
Acute dermal toxicity (LD50)	> 2000 mg/kg	Rabbit ()	Regulation (EC) No. 440/2008, Annex, B.3		MSDS	

2-PHENOXYETHANOL (CAS: 122-99-6) (EC: 204-589-7)

Effect dose / -concentration	Value	Species	Method	Symptoms/ delayed effects	Source	Remark
Acute oral toxicity (LD50)	1400 mg/kg	Rat ()			MSDS	
Acute dermal toxicity (LD50)	2251 mg/kg	Rabbit ()			MSDS	

HEXYL ALCOHOL (CAS: 111-27-3) (EC: 203-852-3)

Effect dose / -concentration	Value	Species	Method	Symptoms/ delayed effects	Source	Remark
Acute oral toxicity (LD50)	3210 mg/kg bw	Rat ()			MSDS	
Acute dermal toxicity (LD50)	1750 mg/kg bw	Rabbit ()			MSDS	
Acute inhalation toxicity (dust/mist) (LC50)	> 21 mg/L Exposure time: 1h				MSDS	

No information available.

Other information

No information available.

Assessment / classification

No information available.

Skin corrosion/irritation

Practical experience/human evidence

No information available.

Acid/alkaline reserve

No information available.

Animal data

No information available.

Other information

No information available.

Assessment / classification

No information available.

Serious eye damage/irritation

Practical experience/human evidence

No information available.

Animal data

No information available.

Other information

No information available.

Assessment / classification

No information available.

Respiratory or skin sensitisation

Sensitisation to the respiratory tract

Practical experience/human evidence

No information available.

Other information

No information available.

Assessment / classification

No information available.

Skin sensitisation

Practical experience/human evidence

No information available.

Animal data

No information available.

Other information

No information available.

Assessment / classification

No information available.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity

In vitro mutagenicity/genotoxicity

No information available.

In vivo mutagenicity/genotoxicity

No information available.

Other information

No information available.

Human toxicological data

No information available.

Assessment / classification

No information available.

Carcinogenicity

Practical experience/human evidence

No information available.

Animal data

No information available.

Other information

No information available.

Assessment / classification

No information available.

Reproductive toxicity

Practical experience/human evidence

No information available.

Animal data

Adverse effects on sexual function and fertility

2,6-DIMETHYLOCT-7-EN-2-OL (CAS: 18479-58-8) (EC: 242-362-4)

Dose / Concentration	Value	Exposure route	Exposure time	Exposure duration	Species	Method	Result / evaluation	Source	Remark
NOAEL(C)	1000 mg/kg bw/day				Rat		negative	MSDS	

No information available.

Adverse effects on developmental toxicity

2,6-DIMETHYLOCT-7-EN-2-OL (CAS: 18479-58-8) (EC: 242-362-4)

Dose / Concentration	Value	Exposure route	Exposure time	Exposure duration	Species	Method	Result / evaluation	Source	Remark
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NOAEL(C)	500				Rat		negative	MSDS	
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No information available.

Effects on or via lactation

No information available.

Other information

No information available.

Assessment / classification

No information available.

Overall assessment on CMR properties

No information available.

STOT - Single exposure

STOT SE 1 and 2

Practical experience/human evidence

No information available.

Animal data

Oral specific target organ toxicity (single exposure)

No information available.

Dermal specific target organ toxicity (single exposure)

No information available.

Inhalative specific target organ toxicity (single exposure)

No information available.

Other information

No information available.

Assessment / classification

No information available.

STOT SE 3

Irritation to respiratory tract

Practical experience/human evidence

No information available.

Other information

No information available.

Assessment / classification

No information available.

Narcotic effects

Practical experience/human evidence

No information available.

Other information

No information available.

Assessment / classification

No information available.

STOT - Repeated exposure

Practical experience/human evidence

No information available.

Animal data

Oral specific target organ toxicity (repeated exposure)

No information available.

Dermal specific target organ toxicity (repeated exposure)

No information available.

Inhalative specific target organ toxicity (single exposure)

No information available.

Other information

No information available.

Assessment / classification

No information available.

Aspiration hazard

Practical experience/human evidence

No information available.

Experimental data

No information available.

Assessment / classification

No information available.

Symptoms related to the physical, chemical and toxicological characteristics

In case of ingestion

No information available.

In case of skin contact

No information available.

In case of inhalation

No information available.

In case of eye contact

No information available.

Additional information

No information available.

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

Other information

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity

2,6-DIMETHYLOCT-7-EN-2-OL (CAS: 18479-58-8) (EC: 242-362-4)

Effect dose / -concentration	Value	Test duration	Species	Result / evaluation	Method	Evaluation parameter	Source	Remark
Acute (short-term) fish toxicity (LC50)	27.8 mg/L	96 h	Oncorhynchus mykiss (rainbow trout)		OECD 203		MSDS	
Acute (short-term) toxicity to aquatic invertebrates (EC50)	38 mg/L	48 h	Daphnia magna (Big water flea)		OECD 202		MSDS	
Acute (short-term) toxicity to algae and cyanobacteria (EC50)	80 mg/L	72 h	Desmodesmus subspicatus		OECD 201		MSDS	

MIXTURE OF ISOMERS: 1-(1,2,3,4,5,6,7,8-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE; 1-(1,2,3,4,5,6,7,8-OCTAHYDRO-2,3,5,5-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE; 1-(1,2,3,5,6,7,8,8A-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE (68155-67-9); 1-(1,2,3,4,6,7,8,8A-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHYL)ETHAN-1-ONE (68155-66-8) (CAS:) (EC: 915-730-3)

Effect dose / -concentration	Value	Test duration	Species	Result / evaluation	Method	Evaluation parameter	Source	Remark
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Acute (short-term) fish toxicity (LC50)	1.3 mg/L	96 h	Lepomis macrochirus (Bluegill)	OECD 203		MSDS	
Acute (short-term) toxicity to aquatic invertebrates (EC50)	1.38 mg/L	48 h	Daphnia magna (Big water flea)	OECD 202		MSDS	
Acute (short-term) toxicity to algae and cyanobacteria (EC50)	> 2.6 mg/L	72 h	Desmodesmus subspicatus	OECD 201		MSDS	

CIS-2-TERT-BUTYLCYCLOHEXYLACETATE (CAS: 20298-69-5) (EC: 243-718-1)

Effect dose / -concentration	Value	Test duration	Species	Result / evaluation	Method	Evaluation parameter	Source	Remark
Acute (short-term) toxicity to aquatic invertebrates (EC50)	17 mg/L	48 h	Daphnia magna (Big water flea)				MSDS	
Acute (short-term) toxicity to algae and cyanobacteria (EC50)	4.2 mg/L	72 h	Desmodesmus subspicatus				MSDS	
Acute (short-term) fish toxicity (LC50)	5,6 mg/L	96 h	Danio rerio (zebra-fish)				MSDS	
Chronic (long-term) toxicity to algae and cyanobacteria (NOEC)	0.57 mg/L	72 h	Desmodesmus subspicatus				MSDS	

BENZOIC ACID, 2-HYDROXY-, HEXYL ESTER (CAS: 6259-76-3) (EC: 228-408-6)

Effect dose / -concentration	Value	Test duration	Species	Result / evaluation	Method	Evaluation parameter	Source	Remark
Acute (short-term) fish toxicity (LC50)	1.34 mg/L	96 h					MSDS	
Acute (short-term) toxicity to aquatic invertebrates (EC50)	0.39 mg/L	48 h	Daphnia magna (Big water flea)				MSDS	
Acute (short-term) toxicity to algae and cyanobacteria (EC50)	0.61 mg/L	72 h					MSDS	

TETRAHYDRO-4-METHYL-2-(2-METHYLPROPYL)-2H-PYRAN-4-OL (CAS: 63500-71-0) (EC: 405-040-6)

Effect dose / -concentration	Value	Test duration	Species	Result / evaluation	Method	Evaluation parameter	Source	Remark
Acute (short-term) fish toxicity (LC50)	354 mg/L	96 h			OECD 203		MSDS	
Acute (short-term) toxicity to aquatic invertebrates (EC50)	320 mg/L	48 h	Daphnia magna (Big water flea)		OECD 202		MSDS	
Acute (short-term) toxicity to algae and cyanobacteria (EC50)	>100 mg/L	72 h			OECD 201		MSDS	

PROPAN-2-OL (CAS: 67-63-0) (EC: 200-661-7)

Effect dose / -concentration	Value	Test duration	Species	Result / evaluation	Method	Evaluation parameter	Source	Remark
Acute (short-term) fish toxicity (LC50)	9640 mg/L	48 h	Pimephales promelas (fathead minnow)				MSDS	
Acute (short-term) toxicity to aquatic invertebrates (EC50)	10000 mg/L	48 h	Daphnia magna (Big water flea)				MSDS	

(E)-4-(2,6,6-TRIMETHYLCYCLOHEXEN-1-YL)BUT-3-EN-2-ONE (CAS: 79-77-6) (EC: 201-224-3)

Effect dose / -concentration	Value	Test duration	Species	Result / evaluation	Method	Evaluation parameter	Source	Remark
Acute (short-term) fish toxicity (LC50)	5.09 mg/L	96 h	Pimephales promelas (fathead minnow)		OECD 203		MSDS	
Acute (short-term) toxicity to aquatic invertebrates (EC50)	4.03 mg/L	48 h	Daphnia magna (Big water flea)		OECD 202		MSDS	
Acute (short-term) toxicity to algae and cyanobacteria (ErC50)	22.15 mg/L	72 h	Desmodesmus subspicatus				MSDS	

BENZYL SALICYLATE (CAS: 118-58-1) (EC: 204-262-9)

Effect dose / -concentration	Value	Test duration	Species	Result / evaluation	Method	Evaluation parameter	Source	Remark
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Acute (short-term) fish toxicity (LC50)	1.03 mg/L	96 h	Danio rerio (zebra-fish)	Regulation (EC) No. 440/2008, Annex, C.1	MSDS
Acute (short-term) toxicity to aquatic invertebrates (EC50)	2.25 mg/L	24 h	Daphnia magna (Big water flea)	OECD 202	MSDS
Acute (short-term) toxicity to algae and cyanobacteria (EC50)	1.29 mg/L	72 h	Selenastrum capricornutum	OECD 201	MSDS

2-PHENOXYETHANOL (CAS: 122-99-6) (EC: 204-589-7)

Effect dose / -concentration	Value	Test duration	Species	Result / evaluation	Method	Evaluation parameter	Source	Remark
Acute (short-term) fish toxicity (LC50)	344 mg/L	96 h	Pimephales promelas (fathead minnow)				MSDS	
Acute (short-term) toxicity to aquatic invertebrates (EC0)	500 mg/L	48 h	Daphnia magna (Big water flea)				MSDS	
Acute (short-term) toxicity to algae and cyanobacteria (EC0)	500 mg/L	72 h	Desmodesmus subspicatus				MSDS	

HEXYL ALCOHOL (CAS: 111-27-3) (EC: 203-852-3)

Effect dose / -concentration	Value	Test duration	Species	Result / evaluation	Method	Evaluation parameter	Source	Remark
Acute (short-term) fish toxicity (LC50)	97 mg/L	96 h					MSDS	
Acute (short-term) toxicity to algae and cyanobacteria (EC50)	79.7 mg/L	72 h					MSDS	

No information available.

Sediment toxicity

No information available.

Terrestrial toxicity

No information available.

Assessment / classification

No information available.

12.2. Persistence and degradability

Biodegradation

No information available.

Abiotic degradation

No information available.

Assessment / classification

No information available.

12.3. Bioaccumulative potential

Bioconcentration factor (BCF)

No information available.

Assessment / classification

No information available.

12.4. Mobility in soil

No information available.

Assessment / classification

No information available.

12.5. Results of PBT and vPvB assessment

Assessment / classification

No information available.

12.6. Endocrine disrupting properties

No information available.

12.7. Other adverse effects

No information available.

12.8. Additional ecotoxicological information

DODECAN-1-OL (CAS: 112-53-8) (EC: 203-982-0)

	Value	Concentration	Test duration	Temperature	Method	Source	Remark
Chemical oxygen demand (COD)	2.82 g O ₂ /g			20 °C	Regulation (EC) No. 440/2008, Annex, C.5 (BOD)	European Chemicals Agency (ECHA)	literature value

PROPAN-2-OL (CAS: 67-63-0) (EC: 200-661-7)

	Value	Concentration	Test duration	Temperature	Method	Source	Remark
Chemical oxygen demand (COD)	2.23 g O ₂ /g			20 °C	Regulation (EC) No. 440/2008, Annex, C.5 (BOD)	European Chemicals Agency (ECHA)	literature value
Chemical oxygen demand (COD)	2.23 g O ₂ /g			20 °C	Regulation (EC) No. 440/2008, Annex, C.5 (BOD)	European Chemicals Agency (ECHA)	literature value

12.9. General information

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Directive 2008/98/EC (Waste Framework Directive)

Before intended use

Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Waste codes / waste designations according to EWC / AVV

[16] WASTES NOT OTHERWISE SPECIFIED IN THE LIST

After intended use

No information available.

Waste codes / waste designations according to EWC / AVV

[16] WASTES NOT OTHERWISE SPECIFIED IN THE LIST

Remark

Recycle according to official regulations.

Other disposal recommendations

Dispose of waste according to applicable legislation.

Additional information

No information available.

SECTION 14: Transport information

	Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI/IATA-DGR)
14.1. UN number	not subject to transport regulations	not subject to transport regulations	not subject to transport regulations	not subject to transport regulations
14.2. UN proper shipping name	not assigned	not assigned	not assigned	not assigned
14.3. Transport hazard class(es)	not assigned	not assigned	not assigned	not assigned
14.4. Packing group	not assigned	not assigned	not assigned	not assigned

	Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI/IATA-DGR)
14.5. Environmental hazards	ENVIRONMENTALLY HAZARDOUS	ENVIRONMENTALLY HAZARDOUS	ENVIRONMENTALLY HAZARDOUS	ENVIRONMENTALLY HAZARDOUS

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

No transport as bulk according to IBC Code.

No information available.

14.8. Additional information

All transport carriers

Marine Pollutant mark required (all transport ways)

Land transport (ADR/RID)

No information available.

Inland waterway transport (ADN)

No information available.

Sea transport (IMDG)

No information available.

Air transport (ICAO-TI/IATA-DGR)

No information available.

SECTION 15: Regulatory information

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

Restrictions on use

No information available.

Restrictions of occupation

No information available.

Other regulations (EU)

No information available.

Regulation (EC) No. 648/2004 [Detergents Regulation]

IUPAC	INCI	CAS	EC	Range
Perfume	Parfum			Equal to or greater than 10%
1-(2-hydroxypropoxy)propan-2-ol	1-(2-hydroxypropoxy)propan-2-ol	110-98-5	203-821-4	Equal to or greater than 10%
Hydrogenated castor oil ethoxylate	Hydrogenated castor oil ethoxylate	61788-85-0	500-147-5	Equal to or greater than 1% but less than 10%
				Equal to or greater than 1% but less than 10%

Dermal Allergenic Substances

INCI	CAS	Impurities % (w/w)	Natural Substance % (w/w)	Intentionally Added % (w/w)	Total Percentage % (w/w)
Tetramethyl acetyloctahydronaphthalenes	54464-57-2	10ppm	10ppm	3.432	3.432
Citronellol	106-22-9	10ppm	10ppm	2.55	2.55
Geraniol	106-24-1	10ppm	10ppm	1.275	1.275
Cinnamyl Alcohol	104-54-1	10ppm	10ppm	0.595	0.595
Limonene	5989-27-5	10ppm	0.124	10ppm	0.124

INCI	CAS	Impurities % (w/w)	Natural Substance % (w/w)	Intentionally Added % (w/w)	Total Percentage % (w/w)
trans-Rose ketone 3	71048-82-3	10ppm	10ppm	0.106	0.106
Benzyl Salicylate	118-58-1	10ppm	10ppm	0.085	0.085
Geranyl Acetate	105-87-3	10ppm	10ppm	0.047	0.047

15.2. Chemical Safety Assessment

No information available.

15.3. Additional information

No information available.

SECTION 16: Other information

16.1. List of relevant hazard statements and/or precautionary statements from sections 2 to 15

Skin Irrit. 2 | H315

Eye Irrit. 2 | H319

Skin Sens. 1 | H317

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

16.2. Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]

No information available.

16.3. Training advice

No information available.

16.4. Key literature references and sources for data

No information available.

16.5. Abbreviations and acronyms

(Q)SAR	Qualitative structure activity relationship, mathematical method to predict e.g. biological activity based on chemical structure
ABS	Absorption
AC	Article category
ACGIH	American Conference of Governmental Industrial Hygienists. An organization of professionals in governmental agencies or educational institutions engaged in occupational safety and health programs. ACGIH develops and publishes recommended occupational exposure limits for chemical substances and physical agents.
ACID	Any chemical which undergoes dissociation in water with the formation of hydrogen ions. Acids have a sour taste and may cause severe burns. They turn litmus paper red and have ph values of 0 to 6. Acids will neutralize bases or alkaline media. Acids will react with a base to form a salt.
ADME	Absorption, distribution, metabolism, and excretion
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADNR	Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADR/RID/ADN	European Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN)
AF	Assessment factor
ANSI	American National Standards Institute. A privately funded organization that identifies industrial/public national consensus standards and coordinates their development.
API	American Petroleum Institute is an organization of the petroleum industry.
AQTX	Aquatic Toxicity. Adverse effects on marine life that result from their being exposed to a toxic substance.
AS	Allometric scaling
ASTM	American Society for Testing and Materials.
ATE	Acute Toxicity Estimate
AUC	Area under the curve; area under the blood/plasma concentration curve vs. time curve, representing the total amount of substance reaching the blood/plasma
BAL	British Anti-Lewisite. A name for the drug dimecaprol--a treatment for toxic inhalations.
BCF	Bio concentration factor

BCM	Blood-clotting mechanism effects.
BEI	Biological Exposure Indexes. Numerical values based on procedures to determine the amount of a material absorbed into the human body by measuring it or its metabolic products in tissue, fluid or exhaled air.
BMD	Benchmark dose; The BMD concept involves fitting a mathematical model to dose-response data. The BMD is defined as the dose causing a predetermined change in response
BMD10	The benchmark-dose associated with a 10% response (for tumours upon lifetime exposure after correction for spontaneous incidence, for other effects in a specified study)
BMDL10	The lower 95% confidence interval of a benchmark-dose representing a 10% response (e.g., tumour response upon lifetime exposure), i.e. the lower 95% confidence interval of a BMD10
BMF	Bio magnification factor
BP	Boiling Point. Temperature at which a liquid changes to a vapor state at a given pressure. Flammable materials with low boiling points generally present special fire hazards.
BREF	Best available technique reference document
BSAF	Biological soil accumulation factor
BTU	British Thermal Unit. Quantity of heat required to raise the temperature of 1 pound of water 1 degree F at 39.2F, its temperature of maximum density.
Bw	Body weight
C	Centigrade, a unit of temperature.
CAD	Chemical Agents Directive
CAS	Chemical Abstracts Service Number. An assigned number used to identify a chemical. CAS stands for Chemical Abstracts Service, an organization that indexes information published in Chemical Abstracts by the American Chemical Society and that provides index guides by which information about particular substances may be located in the abstracts. Sequentially assigned CAS numbers identify specific chemicals, except when followed by an asterisk (*) which signifies a compound (often naturally occurring) of variable composition. the numbers have no chemical significance. The CAS number is a concise, unique means of material identification.
CBI	Confidential business information
CC	Closed cup. Identifies one of the methods used to measure flash points of flammable liquids.
cc (cm3)	Cubic centimeter.
CEN	Comité Européen de Normalisation (European Committee for Standardization)
CFC	Chlorofluorocarbon. Associated with damage to the Earth's ozone layer.
CFR	Code of Federal Regulations. A collection of the regulations established by law.
cgs	Metric units of measure based upon centimeter, gram, and second.
CGS	Control guidance sheets
CHEMTREC	24-hour toll free telephone number (800-424-9300), intended primarily for use by those who respond to chemical transportation emergencies. Established by the Chemical Manufacturer's Association.
CHP	Chemical Hygiene Plan. Per 29 CFR 1910.1450, OSHA standard; "Occupational Exposures to Hazardous Chemicals in Laboratories." Effective 5/1/90. A written plan that includes specific work practices, standard operating procedures, equipment, engineering controls, and policies to ensure that employees are protected from hazardous exposure levels to all potentially hazardous chemicals in use in their work areas. The OSHA standard provides for training, employee access to information, medical consultations, examinations, hazard identification procedures, respirator use, and record keeping practices.
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
Cmax	Peak plasma concentration
CN Code	Combined Nomenclature
CNS	Central Nervous System, the brain and spinal cord.
CSA	Chemical safety assessment
CSR	Chemical safety report
cu ft (ft3)	Cubic foot. Cu ft is more usual.
cu m (m3)	Cubic meter. m3 is preferred.
DGR	Dangerous Goods Regulations (see IATA/DGR)
DMEL	Derived minimum effect level
DNEL	Derived No-Effect Level
DPD	Directive 1999/45/EC (Dangerous Preparations Directive, DPD).
DSC	Differential Scanning Calorimetry
DSD	Directive 67/548/EEC (Dangerous Substances Directive, DSD)
DU	Downstream user
DU-CSA	Downstream user chemical safety assessment
DU-TGD	Downstream user technical guidance document
EASE	Estimation and assessment of substance exposure
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EC50	Effective Concentration. Concentration of a material in water, a single dose which is expected to cause a biological effect on 50% of a group of test animals.
ECHA	European Chemicals Agency
ED10	Effective dose 10 %; a dose representing an in-creased incidence of 10% due to a specific exposure (e.g. to a chemical).
EFSA	European Food Safety Authority
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
ELR	Excess lifetime risk; additional lifetime risk over the background normal risk (or incidence of disease)
EmS	Emergency Schedule
EPIWIN	Estimation Program Interface for Windows
EPL	Exposure predictor band liquid
EPS	Exposure predictor band solid
ERC	Environmental release class

ES	Exposure scenario
ESD	Emission scenario document
EUSES	European System for the Evaluation of Substances
EWL	European waste list
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act requires that certain useful poisons, such as chemical pesticides, sold to the public contain labels that carry health hazard warnings to protect users. It is administered by EPA.
FOG	Visible suspension of fine droplets in a gas.
g	Gram. Metric unit of weight.
GDMF	General decision making framework
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
GLP	Good Laboratory Practice
HBMD10	Human BMD10
HevE	Human exposure via environment
HH	Human health
HS	Harmonized Commodity Description and Coding System (Harmonized System, drawn up by the World Customs Organisation)
HSE	Health safety environment
HT25	Human T25
HILF	High to low dose risk extrapolation factor
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
IC	Industry category
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IDLH	Immediately Dangerous to Life and Health. Maximum concentration from which one could escape within 30 minutes without any escape-impairing symptoms or any irreversible health effects.
IMDG	International Maritime Dangerous Goods
IMDG-Code	International Maritime Dangerous Goods Code
IOELV	Indicative occupational exposure limit value
IPPC	Integrated pollution prevention and control
ISO	International Standards Organisation
ITS	Integrated testing strategy
LC50	Median Lethal Concentration. The atmospheric concentration found to be lethal to 50 percent of a group of test animals exposed for the specified time period.
LCLO	Lethal concentration low. The lowest concentration of a substance in air reported to have caused death in humans or animals. The reported concentrations may be entered for periods of exposure that are less than 24 hr (acute) or greater than 24 hr (subacute and chronic).
LCS	Life cycle stage
LD50	Median Lethal Dose. The dose found to be lethal in 50 percent of a group of test animals when administered by the specified route, e.g., oral or dermal.
LDLO	Lethal dose low. The lowest dose of a substance introduced by any route, other than inhalation, reported to have caused death in humans or animals.
LED10	Lowest confidence limit of the ED10
LEL	Lower Explosive (Flammable) Limit. Lowest concentration (lowest percentage of the substance in air) that will produce a flash of fire when an ignition source (heat, electric arc, or flame) is present.
LEV	Local exhaust ventilation
LMS	Linear multistage model
LOQ	Limit of quantitation
M/I	Manufacturer / importer
MAAC	Maximum Acceptable Ambient Concentration. The maximum allowable twenty-four hour average concentration, in ambient air, of a toxic air contaminant.
mg	Milligram (1/1000, 10 ⁻³ , of a gram).
mg/kg	Milligram per kilogram. Dosage used in toxicology testing to indicate a dose administered per kg of body weight.
mg/m3	Milligram per cubic meter of air. mg/m ³ = ppm x MW/24.45 at 25 C.
Microgram (ug)	One-millionth (10 ⁻⁶) of a gram.
Micrometer (um)	One-millionth (10 ⁻⁶) of a meter; often referred to as a micron.
Millimeter (mm)	1/1000 of a meter.
ml	Milliliter. 1/1000 of a liter. A metric unit of capacity, for all practical purposes equal to 1 cubic centimeter. One cubic inch is about 16 ml.
mm Hg	A measure of pressure in millimeters of a mercury column above a reservoir, or difference of level in a U-tube.
MMAD	Mass median aerodynamic diameter
MoA	Mode of action
MoE	Margin of exposure
mppcf	Millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques (OSHA).
MTD	Maximum tolerated dose

n-	Normal.Used as a prefix in chemical names signifying a straight-chain structure.
NACE	Nomenclature générale des activités économiques dans les Communautés Européennes
NAEC	No adverse effect concentration
NAEL	No adverse effect level
NLP	No-Longer Polymer
NOAEL	No observed adverse effect level
NOEL	No observed effect level
NOx	A general formula for oxides of nitrogen (NO,NO2). They react with moisture in the respiratory tract to produce acids that corrode and irritate tissue, causing congestion and pulmonary edema. Symptoms of acute exposure can develop over 6 to 24 hours. Chronic exposure to low levels can cause irritation, cough, headache, and tooth corrosion. Exposure to 5 to 50 ppm of NO2 can cause slowly evolving pulmonary edema. Commonly produced by combustion processes, including motor vehicle engines.
OC	Operational condition
OEL	Occupational Exposure Limit. The most restrictive eight-hour time weighted average concentration specified for workroom air selected from either the 1986-1987 Threshold Limit Values and Biological Exposure Indices as adopted by the American Conference of Governmental Industrial Hygienists; the Recommended Standards for Occupational Exposure set forth in the July 1985 summary of National Institute for Occupational Safety and Health Recommendations for Occupational Health Standards; or the 1986 Workplace Environmental Exposure Levels set forth by the American Industrial Hygiene Association.
OR	Odds ratio; the ratio of the odds of an event occurring in one group to the odds of it occurring in another group
ORL	Lowest confidence limit of the OR
OU	Operational unit
PBPK	Physiologically-based pharmacokinetic modelling
PBT	Persistent, Bioaccumulative and Toxic
PBT	Persistent, bioaccumulative, toxic
PC	Chemical product category
PCB	Polychlorinated Biphenyl. Pathogenic and teratogenic compound used as a heat transfer medium. It accumulates in tissue.
PEC	Predicted environmental concentration
PEL	Permissible Exposure Limit. Legally enforced exposure limit for a substance established by OSHA. The PEL indicates the permissible concentration of air contaminants to which nearly all workers may be repeatedly exposed 8 hours a day, 40 hours a week, over a working lifetime (40 years), without adverse effects.
PHLEGM	Thick mucous from the respiratory passage.
PNEC	Predicted No-Effect Concentration
PNEC	Predicted no-effect concentration
POx	A general term for the several oxides of phosphorus.
PPE	Personal Protection Equipment. Devices or clothing worn to help insulate a worker from direct exposure to hazardous materials. Examples include gloves and respirators.
PPM	Parts per million. Unit for measuring concentration of a gas or vapor in air. Parts of the gas or vapor in a million parts of air. Also used to indicate the concentration of a particular substance in a liquid or solid.
PROC	Process category
psia	Pounds per square inch absolute.
psig	Pounds per square inch gauge (i.e., above atmospheric pressure).
QSPR	Quantitative structure-property relationships
RC	Risk characterization
RCR	Risk characterization ratio
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations Concerning the International Carriage of Dangerous Goods by Rail
RMM	Risk management measure
RQ	Reportable Quantity. Amount of material that when spilled must be reported to the Federal, State, and local authorities under CERCLA, EPCRA, and the CWA.
RR	Relative risk
RRL	Lower bound exposure value associated with the RR-value of 1.1
RSS	Robust study summaries
RTECS	Registry of Toxic Effects of Chemical Substances. Published by NIOSH. Presents basic toxicity data on thousands of materials. Objective is to identify "all known toxic substances" and to reference original studies.
S.I. No. 619 of 2001	Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001
SARA	Superfund Amendments and Reauthorization Act. Signed into law October 17, 1986. Title III of SARA is known as the Emergency Planning and Community Right-to-Know Act of 1986. A revision and extension of CERCLA, SARA is intended to encourage and support local and state emergency planning efforts. It provides citizens and local governments with information about potential chemical hazards in their communities. SARA calls for facilities that store hazardous materials to provide officials and citizens with data on the types (flammables, corrosives, etc.); amounts on hand (daily, yearly); and their specific locations. Facilities are to prepare and submit inventory lists, MSDSs, and tier 1 and 2 inventory forms. The disaster in Bhopal, India in 1987 added impetus to the passage of this law.
SCBA	Self-contained breathing apparatus.
SDS	Safety data sheet
SI	The International System of Units
SIEF	Substance information exchange forum
SME	Small and medium enterprise
SMR	Standardised mortality ratio
SMRL	Lower bound exposure value associated with the SMR-value of 1.1
SOx	Oxides of sulfur where x equals the number of oxygen atoms.
sRV	Standard respiratory volume
STEL	Short-term exposure limit.
STEV	Short-term exposure value.

STP	Sewage treatment plant
SU	Sectors of use
SVHC	Substance of Very High Concern
T25	The chronic dose rate that will give 25% of the animals' tumours at a specific tissue site after correction for spontaneous incidence, within the standard life time of that species
TARIC	Tarif intégré des Communautés Européennes
TG	Test Guideline
TLV	Threshold Limit Value. Airborne concentration of substances established by the American Conference of Governmental Industrial Hygienists, which represent conditions under which it is believed that nearly all workers may be repeatedly exposed day after day without adverse effect.
TLV-C	Ceiling limit, concentration that should not be exceeded even instantaneously.
TLV-STEL	Short term exposure limit, maximum concentration for a continuous 15-minute exposure period.
TLV-TWA	Time-weighted average, concentration for a normal 8-hour work day or 40-hour work week.
TPQ	Threshold Planning Quantity. Per 40 CFR 302. The amount of material at a facility that requires emergency planning and notification per CERCLA.
TSCA	Toxic Substances Control Act. Public Law PL 94-469. Found in 40 CFR 700-799. EPA has jurisdiction. Effective January 1, 1977. Controls the exposure to and use of raw industrial chemicals not subject to other laws. Chemicals are to be evaluated prior to use and can be controlled based on risk. The act provides for a listing of all chemicals that are to be evaluated prior to manufacture or use in the US.
TTC	Threshold of toxicological concern
TWA	Time-weighted average exposure is the airborne concentration of a material to which a person is exposed, averaged over the total exposure time, generally the total workday (8 to 12 hours) .
TWA	Time-weighted average exposure
UC	Use category
UCN	Use code Nordic
UDS	Use descriptor system
UEC	Use and exposure categories
UEL	Upper Explosive (Flammable) Limit. Highest concentration (highest percentage of the substance in air) that will produce a flash of fire when an ignition source (heat, electric arc, or flame) is present.
UN	United Nations
UN RTDG	UN Recommendations on the Transport of Dangerous Goods – Model Regulations. It is regularly updated and amended every two years. More information and the latest revision are available at: http://www.unece.org/trans/danger/publi/unrec/rev13/13nature_e.html
UN-MTC	The UN Manual of Tests and Criteria contains criteria, test methods and procedures to be used for classification of dangerous goods according to the provisions of Parts 2 and 3 of the United Nations Recommendations on the Transport of Dangerous Goods, Model Regulations, as well as of chemicals presenting physical hazards according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). More information and the latest revision are available at: http://www.unece.org/trans/danger/publi/manual/manual_e.html
USE	To package, handle, react, or transfer.
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials as defined in the Guidance on substance identification
VOC	Volatile Organic Compounds. Used in coatings and paint because they evaporate very rapidly.
vPvB	Very Persistent and very Bioaccumulative
WoE	weight of evidence
wRV	Worker respiratory volume

16.6. Indication of changes

Version	Indication of changes	Revision date
1.0.0	Primo Rilascio	11-06-2025

16.6. Additional information

No information available.

Before using this product, ensure that you read its label and understand its properties.

The information contained in this SDS is, to the best of our knowledge and belief, accurate and reliable at the time of publication. The information relates only to the specific material specified in this SDS and may not apply to that material if used in combination with other materials or for a use other than that specified herein. Neither we nor any of our subsidiaries assume any liability for the use of this product for purposes other than those described in this SDS. This does not affect the legal rights of the user. It is the responsibility of the user to satisfy himself as to the suitability and completeness of this information for his own particular use.