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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 08.03.2023 / 0001
Replacing version dated / version: 08.03.2023 / 0001
Valid from: 08.03.2023
PDF print date: 08.03.2023
Duftstoff Tropical
Art.: 255999

Safety data sheet
according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

Duftstoff Tropical
Art.: 255999

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses of the substance or mixture:
perfumes
Uses advised against:
No information available at present.

1.3 Details of the supplier of the safety data sheet
Koch-Chemie GmbH
Einsteinstrasse 42
59423 Unna
Telefon: +49 (0) 2303 / 9 86 70 - 0
Fax: +49 (0) 2303 / 9 86 70 - 26
info@koch-chemie.com
www.koch-chemie.com

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number
Emergency information services / official advisory body:
IRL

National Poisons Information Centre, Beaumont Hospital, Dublin 9, Ireland, Tel.:
+353 (0)1 809 2166 (Public Poisons Info Line, 8am-10pm, 7 days a week)
+353 (0)1 809 2566 (Info for Healthcare Professionals ONLY, 24 h, 7 days a week)
Telephone number of the company in case of emergencies:
+1 872 5888271 (KCC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Skin Irrit.	2	H315-Causes skin irritation.
Skin Sens.	1	H317-May cause an allergic skin reaction.
Aquatic Chronic	2	H411-Toxic to aquatic life with long lasting effects.

2.2 Label elements
Labeling according to Regulation (EC) 1272/2008 (CLP)

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Warning

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

P261-Avoid breathing vapours or spray. P273-Avoid release to the environment. P280-Wear protective gloves.
P314-Get medical advice / attention if you feel unwell.

Geraniol
Dipentene
Linalool
Pentadecan-15-olide
Dodecanal
Coumarin
3-p-cumenyl-2-methylpropionaldehyde
2-methylundecanal
cineole
Ethyl 2,3-epoxy-3-phenylbutyrat
Citronellol
[1.alpha.(E),2.beta.]-1-(2,6,6-trimethylcyclohex-3-en-1-yl)but-2-en-1-one
3-methyl-4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-3-buten-2-one
4-tert-butylcyclohexyl acetate
Benzyl salicylate
Tetramethyl acetyloctahydronaphthalenes (OTNE)
Allyl 3-cyclohexylpropionate
Hexyl salicylate
3,7-dimethyloctan-3-ol
2,6-dimethylhept-5-enal
(2E)-3-phenyl-2-pentyl-prop-2-enal
(2E)-2-benzylideneoctanal
cis-4-(isopropyl)cyclohexanemethanol

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).
The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).
The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

SECTION 3: Composition/information on ingredients

3.1 Substances

n.a.

3.2 Mixtures

Cis-2-tert-butylcyclohexyl acetate	
Registration number (REACH)	01-2119970713-33-XXXX
Index	---

EINECS, ELINCS, NLP, REACH-IT List-No.	243-718-1
CAS	20298-69-5
content %	5-<10
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Aquatic Chronic 2, H411

Dipentene	
Registration number (REACH)	01-2119529223-47-XXXX
Index	601-029-00-7
EINECS, ELINCS, NLP, REACH-IT List-No.	205-341-0
CAS	138-86-3
content %	3-<5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)

Undecan-4-olide	
Registration number (REACH)	01-2119959333-34-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	203-225-4
CAS	104-67-6
content %	1-<5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Aquatic Chronic 3, H412

3-methyl-5-phenylpentanol	
Registration number (REACH)	01-2119969446-23-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	259-461-3
CAS	55066-48-3
content %	1-<5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 4, H302 STOT RE 2, H373

Benzyl acetate	
Registration number (REACH)	01-2119638272-42-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	205-399-7
CAS	140-11-4
content %	1-<5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Aquatic Chronic 3, H412

.alpha.,.alpha.-dimethylphenethyl acetate	
Registration number (REACH)	01-2120258394-51-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	205-781-3
CAS	151-05-3
content %	1-<5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Aquatic Chronic 3, H412

3,7-dimethyloctan-3-ol	
Registration number (REACH)	01-2119454788-21-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	201-133-9

CAS	78-69-3
content %	1-<5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317

(E)-4-(2,6,6-trimethyl-1-cyclohexen-1-yl)-3-buten-2-one	
Registration number (REACH)	01-2119449921-34-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	201-224-3
CAS	79-77-6
content %	1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Aquatic Chronic 2, H411

Tetramethyl acetyloctahydronaphthalenes (OTNE)	
Registration number (REACH)	01-2119489989-04-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	915-730-3
CAS	---
content %	1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Chronic 1, H410 (M=1)

Allyl 3-cyclohexylpropionate	
Registration number (REACH)	01-2119976355-27-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	220-292-5
CAS	2705-87-5
content %	1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Sens. 1B, H317 Aquatic Chronic 1, H410 (M=1) Aquatic Acute 1, H400 (M=1)

Hexyl salicylate	
Registration number (REACH)	01-2119638275-36-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	228-408-6
CAS	6259-76-3
content %	1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Sens. 1B, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)

(2E)-2-benzylideneoctanal	
Registration number (REACH)	01-2119533092-50-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	639-566-4
CAS	165184-98-5
content %	1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Sens. 1B, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 2, H411

Linalool	
Registration number (REACH)	01-2119474016-42-XXXX

Index	603-235-00-2
EINECS, ELINCS, NLP, REACH-IT List-No.	201-134-4
CAS	78-70-6
content %	1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317

4-tert-butylcyclohexyl acetate	
Registration number (REACH)	01-2119976286-24-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	250-954-9
CAS	32210-23-4
content %	1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Sens. 1B, H317

Benzyl salicylate	
Registration number (REACH)	01-2119969442-31-XXXX
Index	607-754-00-5
EINECS, ELINCS, NLP, REACH-IT List-No.	204-262-9
CAS	118-58-1
content %	1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Eye Irrit. 2, H319 Skin Sens. 1B, H317 Aquatic Chronic 3, H412

3-p-cumenyl-2-methylpropionaldehyde	
Registration number (REACH)	01-2119970582-32-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	203-161-7
CAS	103-95-7
content %	1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 3, H412

Coumarin	
Registration number (REACH)	01-2119949300-45-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	202-086-7
CAS	91-64-5
content %	1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 4, H302 Skin Sens. 1, H317 Aquatic Chronic 3, H412

2-methylundecanal	
Registration number (REACH)	01-2119969443-29-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	203-765-0
CAS	110-41-8
content %	0,25-<1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)

Pentadecan-15-olide	
Registration number (REACH)	01-2119987323-31-XXXX

Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	203-354-6
CAS	106-02-5
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Sens. 1, H317 Aquatic Chronic 2, H411

Ethyl 2,3-epoxy-3-phenylbutyrat	
Registration number (REACH)	01-2119967770-28-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	201-061-8
CAS	77-83-8
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Sens. 1B, H317 Aquatic Chronic 2, H411

3-methyl-4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-3-buten-2-one	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	204-846-3
CAS	127-51-5
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Chronic 2, H411

Dodecanal	
Registration number (REACH)	01-2119969441-33-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	203-983-6
CAS	112-54-9
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317

cineole	
Registration number (REACH)	01-2119967772-24-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	207-431-5
CAS	470-82-6
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Flam. Liq. 3, H226 Skin Sens. 1B, H317

2,6-dimethylhept-5-enal	
Registration number (REACH)	01-2120270305-62-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	203-427-2
CAS	106-72-9
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Sens. 1B, H317

(2E)-3-phenyl-2-pentyl-prop-2-enal	
Registration number (REACH)	01-2119978288-18-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	800-696-3
CAS	78605-96-6

content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Sens. 1B, H317 Aquatic Chronic 2, H411

Tetrahydro-4-methyl-2-(2-methylprop-1-enyl)pyran	
Registration number (REACH)	01-2119976300-42-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	240-457-5
CAS	16409-43-1
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361f

cis-4-(isopropyl)cyclohexanemethanol	
Registration number (REACH)	01-2119983532-32-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	237-539-8
CAS	13828-37-0
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Skin Sens. 1, H317

Citronellol	
Registration number (REACH)	01-2119453995-23-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	203-375-0
CAS	106-22-9
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317

[1.alpha.(E),2.beta.]-1-(2,6,6-trimethylcyclohex-3-en-1-yl)but-2-en-1-one	
Registration number (REACH)	01-2119535122-53-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	275-156-8
CAS	71048-82-3
content %	0,1-<0,25
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 4, H302 Skin Irrit. 2, H315 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)

(Z)-3-hexenyl salicylate	
Registration number (REACH)	01-2119987320-37-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	265-745-8
CAS	65405-77-8
content %	0,1-<0,25
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Aquatic Acute 1, H400 (M=1)

7-methyl-3-methyleneocta-1,6-diene	
Registration number (REACH)	01-2119514321-56-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	204-622-5

CAS	123-35-3
content %	0,1-<0,25
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 2, H411

Geraniol	
Registration number (REACH)	01-2119552430-49-XXXX
Index	603-241-00-5
EINECS, ELINCS, NLP, REACH-IT List-No.	203-377-1
CAS	106-24-1
content %	0,1-<0,25
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.
The substances named in this section are given with their actual, appropriate classification!
For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures
First-aiders should ensure they are protected!
Never pour anything into the mouth of an unconscious person!

Inhalation
Supply person with fresh air and consult doctor according to symptoms.

Skin contact
Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact
Remove contact lenses.
Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion
Rinse the mouth thoroughly with water.
Do not induce vomiting - give copious water to drink. Consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed
If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.
In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.
reddening of the skin
Dermatitis (skin inflammation)
Allergic reaction

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

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
Water jet spray / alcohol resistant foam / CO2 / dry extinguisher.

Unsuitable extinguishing media
High volume water jet

5.2 Special hazards arising from the substance or mixture
In case of fire the following can develop:
Oxides of carbon
Toxic gases

5.3 Advice for firefighters
For personal protective equipment see Section 8.
In case of fire and/or explosion do not breathe fumes.
Protective respirator with independent air supply.
According to size of fire
Full protection, if necessary.
Cool container at risk with water.
Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
6.1.1 For non-emergency personnel
In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.
Ensure sufficient ventilation, remove sources of ignition.
Avoid dust formation with solid or powder products.
Leave the danger zone if possible, use existing emergency plans if necessary.
Keep unprotected persons away.
Avoid contact with eyes or skin.
If applicable, caution - risk of slipping.

6.1.2 For emergency responders
See section 8 for suitable protective equipment and material specifications.

6.2 Environmental precautions
If leakage occurs, dam up.
Resolve leaks if this possible without risk.
Prevent surface and ground-water infiltration, as well as ground penetration.
Prevent from entering drainage system.
If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up
Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.
Fill the absorbed material into lockable containers.

6.4 Reference to other sections
For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling
7.1.1 General recommendations
Ensure good ventilation.
Avoid contact with eyes or skin.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
Observe directions on label and instructions for use.
Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace
General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities
Keep out of access to unauthorised individuals.
Store product closed and only in original packing.

Not to be stored in gangways or stair wells.
Under all circumstances prevent penetration into the soil.
Protect from direct sunlight and warming.
Store in a well ventilated place.
Store cool.

7.3 Specific end use(s)

No information available at present.
Observe the instructions for good working practice and the recommendations for risk assessment.
Consult hazardous substance information systems, e.g. from the professional associations, the chemical industry or different industries,
depending on the application (building materials, wood, chemistry, laboratory, leather, metal).

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

IRL **Chemical Name**	Benzyl acetate	
OELV-8h: 10 ppm	OELV-15min: ---	---
Monitoring procedures:	---	
BLV: ---	Other information: ---	

Cis-2-tert-butylcyclohexyl acetate						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	0,011	mg/l	
	Environment - marine		PNEC	0,0011	mg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - sediment, freshwater		PNEC	1,5	mg/kg dw	
	Environment - sediment, marine		PNEC	0,15	mg/kg dw	
	Environment - soil		PNEC	0,293	mg/kg dw	

Undecan-4-olide						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	5,85	µg/l	
	Environment - marine		PNEC	0,585	µg/l	
	Environment - periodic release		PNEC	0,0585	mg/l	
	Environment - sediment, freshwater		PNEC	0,628	mg/kg	
	Environment - sediment, marine		PNEC	0,063	mg/kg	
	Environment - sewage treatment plant		PNEC	80	mg/l	
	Environment - soil		PNEC	0,122	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	4,68	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	2,7	mg/kg bw/d	
Consumer	Human - oral	Long term, systemic effects	DNEL	2,7	mg/kg bw/d	

Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	19	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	5,38	mg/kg bw/d	

Benzyl acetate						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	0,004	mg/l	
	Environment - marine		PNEC	0,0004	mg/l	
	Environment - periodic release		PNEC	0,04	mg/l	
	Environment - sewage treatment plant		PNEC	8,55	mg/l	
	Environment - sediment, freshwater		PNEC	0,114	mg/kg	
	Environment - sediment, marine		PNEC	0,0114	mg/kg	
	Environment - soil		PNEC	0,0205	mg/kg	
Consumer	Human - oral	Short term, systemic effects	DNEL	6,25	mg/kg bw/day	
Consumer	Human - dermal	Short term, systemic effects	DNEL	6,25	mg/kg bw/day	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	11	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	5,5	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	2,5	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	3,125	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	9	mg/m3	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	43,8	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	6,25	mg/kg bw/day	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	12,5	mg/kg bw/day	

3,7-dimethyloctan-3-ol						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	0,0089	mg/l	
	Environment - marine		PNEC	0,00089	mg/l	
	Environment - sporadic (intermittent) release		PNEC	0,089	mg/l	
	Environment - sewage treatment plant		PNEC	450	mg/l	
	Environment - sediment, freshwater		PNEC	0,0821	mg/kg	
	Environment - sediment, marine		PNEC	0,00821	mg/kg	
	Environment - soil		PNEC	0,0112	mg/kg	
Consumer	Human - dermal	Long term, systemic effects	DNEL	1,25	mg/kg	

Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,68	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,2	mg/kg	
Consumer	Human - dermal	Short term, local effects	DNEL	2,76	mg/cm2	
Consumer	Human - dermal	Short term, local effects	DNEL	2,76	mg/cm2	
Consumer	Human - dermal	Long term, local effects	DNEL	0,19	mg/cm2	
Workers / employees	Human - dermal	Long term, local effects	DNEL	0,19	mg/cm2	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	2,5	mg/kg	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	2,75	mg/m3	
Workers / employees	Human - dermal	Short term, local effects	DNEL	2,76	mg/cm2	

(E)-4-(2,6,6-trimethyl-1-cyclohexen-1-yl)-3-buten-2-one

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,00403	mg/l	
	Environment - marine		PNEC	0,0004	mg/l	
	Environment - sporadic (intermittent) release		PNEC	0,0403	mg/l	
	Environment - sewage treatment plant		PNEC	1	mg/l	
	Environment - sediment, freshwater		PNEC	0,151	mg/kg	
	Environment - sediment, marine		PNEC	0,0151	mg/kg	
	Environment - soil		PNEC	0,0508	mg/kg	
Consumer	Human - dermal	Long term, systemic effects	DNEL	3,6	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	3,1	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	1,8	mg/kg	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	6	mg/kg	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	12,7	mg/m3	

Tetramethyl acetyloctahydronaphthalenes (OTNE)

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,0028	mg/l	
	Environment - marine		PNEC	0,00028	mg/l	
	Environment - sediment, freshwater		PNEC	3,73	mg/kg	
	Environment - sediment, marine		PNEC	0,75	mg/kg	
	Environment - soil		PNEC	0,705	mg/kg	
Workers / employees	Human - dermal	Long term, local effects	DNEL	0,1011	mg/cm2	

Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	1,76	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	1,73	mg/kg body weight/day	

Allyl 3-cyclohexylpropionate

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - soil		PNEC	0,00475	mg/kg dry weight	
	Environment - water		PNEC	0,00013	mg/l	
	Environment - marine		PNEC	0,000013	mg/l	
	Environment - sediment, marine		PNEC	0,002413	mg/kg dry weight	
	Environment - sediment, freshwater		PNEC	0,02413	mg/kg dry weight	
	Environment - sewage treatment plant		PNEC	0,2	mg/l	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	3,7	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	2,1	mg/kg body weight/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	2,1	mg/kg body weight/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	15	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	4,3	mg/kg body weight/day	

Hexyl salicylate

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,000357	mg/l	
	Environment - marine		PNEC	0,0000357	mg/l	
	Environment - sediment, freshwater		PNEC	0,059	mg/kg	
	Environment - sediment, marine		PNEC	0,0059	mg/kg	
	Environment - soil		PNEC	0,0542	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,219	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	1250	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	0,729	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	2083	mg/kg bw/d	

(2E)-2-benzylideneoctanal						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	3	mg/l	
	Environment - marine		PNEC	0,003	mg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - sediment, freshwater		PNEC	4,7	mg/kg	
	Environment - sediment, marine		PNEC	4,77	mg/kg	
	Environment - freshwater		PNEC	0,00126	mg/l	
	Environment - marine		PNEC	0,000126	mg/l	
	Environment - sediment, freshwater		PNEC	3,2	mg/kg dw	
	Environment - sediment, marine		PNEC	0,064	mg/kg dw	
	Environment - soil		PNEC	0,398	mg/kg dw	
	Environment - oral (animal feed)		PNEC	6,6	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,019	mg/m3	
Consumer	Human - inhalation	Short term, local effects	DNEL	4,7	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	9	mg/kg body weight/day	
Consumer	Human - dermal	Long term, local effects	DNEL	0,079	mg/cm2	
Consumer	Human - dermal	Short term, local effects	DNEL	0,079	mg/cm2	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,056	mg/kg body weight/day	
Workers / employees	Human - dermal	Short term, local effects	DNEL	0,525	mg/cm2	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	6,28	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	18,2	mg/kg body weight/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	0,078	mg/m3	
Workers / employees	Human - dermal	Long term, local effects	DNEL	0,525	mg/cm2	

Linalool						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	0,2	mg/l	
	Environment - marine		PNEC	0,02	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	2	mg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	

	Environment - sediment, freshwater		PNEC	2,22	mg/kg	
	Environment - sediment, marine		PNEC	0,222	mg/kg	
	Environment - soil		PNEC	0,3	mg/kg	
Consumer	Human - dermal	Short term, local effects	DNEL	15	mg/cm2	
Consumer	Human - dermal	Long term, systemic effects	DNEL	1,25	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,7	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,2	mg/kg bw/d	
Consumer	Human - dermal	Short term, systemic effects	DNEL	2,5	mg/kg bw/d	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	4,1	mg/m3	
Consumer	Human - oral	Short term, systemic effects	DNEL	1,2	mg/kg bw/d	
Consumer	Human - dermal	Long term, local effects	DNEL	15	mg/kg bw/d	
Consumer	Human - dermal	Short term, systemic effects	DNEL	15	mg/kg bw/d	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	2,5	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	2,8	mg/m3	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	5	mg/kg bw/d	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	16,5	mg/m3	
Workers / employees	Human - dermal	Long term, local effects	DNEL	15	mg/kg bw/d	
Workers / employees	Human - dermal	Short term, local effects	DNEL	15	mg/kg bw/d	

4-tert-butylcyclohexyl acetate

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,0053	mg/l	
	Environment - marine		PNEC	0,00053	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	0,053	mg/l	
	Environment - sediment, freshwater		PNEC	2,01	mg/kg	
	Environment - sediment, marine		PNEC	0,21	mg/kg	
	Environment - soil		PNEC	0,42	mg/kg	
Consumer	Human - oral	Long term, systemic effects	DNEL	62500	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,11	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	0,625	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	1,25	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	0,44	mg/m3	

Benzyl salicylate						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	0,00103	mg/l	
	Environment - marine		PNEC	0,000103	mg/l	
	Environment - sediment, freshwater		PNEC	0,584	mg/kg	
	Environment - sediment, marine		PNEC	0,0584	mg/kg	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - soil		PNEC	0,021	mg/kg	
	Environment - periodic release		PNEC	0,0103	mg/l	
Consumer	Human - dermal	Long term, systemic effects	DNEL	0,45	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,78	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,45	mg/kg body weight/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,45	mg/kg body weight/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	3,17	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,9	mg/kg body weight/day	

Coumarin						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	19	µg/l	
	Environment - marine		PNEC	1,9	µg/l	
	Environment - sewage treatment plant		PNEC	6,4	mg/l	
	Environment - sediment, freshwater		PNEC	0,15	mg/kg dw	
	Environment - sediment, marine		PNEC	0,015	mg/kg dw	
	Environment - soil		PNEC	0,018	mg/kg dw	
	Environment - sporadic (intermittent) release		PNEC	14,2	µg/l	
Consumer	Human - dermal	Long term, systemic effects	DNEL	0,39	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	1,69	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,39	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,79	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	0,741	mg/m3	

Ethyl 2,3-epoxy-3-phenylbutyrat						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	0,008	mg/l	
	Environment - marine		PNEC	8,4	µg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - sediment, freshwater		PNEC	0,214	mg/kg	
	Environment - sediment, marine		PNEC	0,021	mg/kg	
	Environment - soil		PNEC	0,038	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	2,17	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	1,25	mg/kg body weight/day	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	2,45	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,7	mg/kg	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	17,63	mg/m3	

Dodecanal						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	0,0035	mg/l	
	Environment - marine		PNEC	0,00035	mg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	12,3	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	7	mg/kg body weight/day	
Consumer	Human - dermal	Long term, local effects	DNEL	0,00028	mg/cm2	
Consumer	Human - oral	Long term, systemic effects	DNEL	7	mg/kg body weight/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	49,7	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	14,1	mg/kg body weight/day	
Workers / employees	Human - dermal	Long term, local effects	DNEL	0,00057	mg/cm2	

2-methylundecanal						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	0,18	µg/l	
	Environment - marine		PNEC	0,018	µg/l	

	Environment - sporadic (intermittent) release		PNEC	1,8	µg/l	
	Environment - sewage treatment plant		PNEC	10	mg/m3	
	Environment - sediment, freshwater		PNEC	0,072	mg/kg dw	
	Environment - sediment, marine		PNEC	0,00722	mg/kg dw	
	Environment - soil		PNEC	0,014	mg/kg dw	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	14,5	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	4,2	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	4,2	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	59	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	8,3	mg/kg bw/day	

cineole						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	57	µg/l	
	Environment - marine		PNEC	5,7	µg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - sediment, freshwater		PNEC	1,425	mg/kg	
	Environment - sediment, marine		PNEC	0,142	mg/kg	
	Environment - soil		PNEC	0,25	mg/kg	
Consumer	Human - dermal	Long term, systemic effects	DNEL	1	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	1,74	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	600	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	2	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	7,05	mg/m3	

2,6-dimethylhept-5-enal						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	0,0023	mg/l	
	Environment - marine		PNEC	0,00023	mg/l	
	Environment - sediment, freshwater		PNEC	0,045	mg/kg dw	
	Environment - sediment, marine		PNEC	0,0045	mg/kg dw	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - soil		PNEC	0,021	mg/kg dw	

Consumer	Human - inhalation	Long term, systemic effects	DNEL	1,74	mg/m3	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	5,22	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	4,35	mg/m3	
Consumer	Human - inhalation	Short term, local effects	DNEL	13,04	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	1	mg/kg bw/d	
Consumer	Human - dermal	Short term, systemic effects	DNEL	85	mg/kg bw/d	
Consumer	Human - dermal	Long term, local effects	DNEL	70,83	mg/cm2	
Consumer	Human - dermal	Short term, local effects	DNEL	212,5	mg/cm2	
Consumer	Human - oral	Long term, systemic effects	DNEL	1	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	7,05	mg/m3	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	21,16	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	17,63	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	52,89	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	2	mg/kg bw/d	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	170	mg/kg bw/d	
Workers / employees	Human - dermal	Long term, local effects	DNEL	141,7	mg/cm2	
Workers / employees	Human - dermal	Short term, local effects	DNEL	425	mg/cm2	

(2E)-3-phenyl-2-pentyl-prop-2-enal

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,0011	mg/l	
	Environment - marine		PNEC	0,00011	mg/l	
	Environment - periodic release		PNEC	0,011	mg/l	
	Environment - sediment, freshwater		PNEC	0,924	mg/kg	
	Environment - sediment, marine		PNEC	0,092	mg/kg	
	Environment - sewage treatment plant		PNEC	0,184	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,43	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	0,625	mg/kg	
Consumer	Human - dermal	Long term, local effects	DNEL	0,12	mg/cm2	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,15	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	1,76	mg/m3	

Workers / employees	Human - dermal	Long term, systemic effects	DNEL	1,25	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, local effects	DNEL	0,24	mg/cm2	
Workers / employees	Human - dermal	Short term, local effects	DNEL	0,24	mg/cm2	

Tetrahydro-4-methyl-2-(2-methylprop-1-enyl)pyran

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	33,2	µg/l	
	Environment - marine		PNEC	3,32	µg/l	
	Environment - water, sporadic (intermittent) release		PNEC	0,332	µg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - sediment, freshwater		PNEC	2,29	mg/kg	
	Environment - sediment, marine		PNEC	0,229	mg/kg	
	Environment - soil		PNEC	0,437	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,3	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	0,2	mg/kg bw/d	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,2	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	1,2	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,3	mg/kg bw/d	

Citronellol

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,0024	mg/l	
	Environment - marine		PNEC	0,00024	mg/l	
	Environment - sewage treatment plant		PNEC	580	mg/l	
	Environment - sediment, freshwater		PNEC	0,0256	mg/kg	
	Environment - sediment, marine		PNEC	0,00256	mg/kg	
	Environment - soil		PNEC	0,00371	mg/kg	
	Environment - water, sporadic (intermittent) release		PNEC	0,024	mg/l	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	47,8	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	196,4	mg/kg	
Consumer	Human - oral	Long term, systemic effects	DNEL	13,8	mg/kg	
Consumer	Human - dermal	Short term, local effects	DNEL	2,95	mg/cm2	

Consumer	Human - inhalation	Long term, local effects	DNEL	10	mg/m3	
Consumer	Human - inhalation	Short term, local effects	DNEL	10	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	161,6	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	327,4	mg/kg	
Workers / employees	Human - dermal	Short term, local effects	DNEL	2,95	mg/cm2	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	10	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	10	mg/m3	

[1.alpha.(E),2.beta.]-1-(2,6,6-trimethylcyclohex-3-en-1-yl)but-2-en-1-one

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - water		PNEC	0,014	mg/l	
	Environment - sediment, freshwater		PNEC	0,561	mg/kg dry weight	
	Environment - marine		PNEC	0,001	mg/l	
	Environment - sediment, marine		PNEC	0,056	mg/kg dry weight	
	Environment - sewage treatment plant		PNEC	2,7	mg/l	
	Environment - soil		PNEC	0,103	mg/kg dry weight	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,43	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	0,25	mg/kg body weight/day	
Consumer	Human - dermal	Long term, local effects	DNEL	0,069	mg/cm2	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,25	mg/kg body weight/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	1,5	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,4	mg/kg body weight/day	
Workers / employees	Human - dermal	Long term, local effects	DNEL	0,116	mg/cm2	

Geraniol

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,011	mg/l	
	Environment - marine		PNEC	0,001	mg/l	
	Environment - sediment, freshwater		PNEC	0,115	mg/kg	
	Environment - sediment, marine		PNEC	0,011	mg/kg	

	Environment - sewage treatment plant		PNEC	0,7	mg/l	
	Environment - soil		PNEC	0,017	mg/kg	
Consumer	Human - dermal	Long term, systemic effects	DNEL	7,5	mg/kg bw/d	
Consumer	Human - oral	Long term, systemic effects	DNEL	13,75	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	47,8	mg/m3	
Consumer	Human - dermal	Long term, local effects	DNEL	11,8	mg/cm2	
Workers / employees	Human - dermal	Long term, local effects	DNEL	11,8	mg/cm2	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	12,5	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	161	mg/m3	

Oxydipropanol						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	0,1	mg/l	
	Environment - marine		PNEC	0,01	mg/l	
	Environment - sporadic (intermittent) release		PNEC	1	mg/l	
	Environment - sewage treatment plant		PNEC	1000	mg/l	
	Environment - sediment, freshwater		PNEC	0,238	mg/kg	
	Environment - marine		PNEC	0,0238	mg/kg	
	Environment - soil		PNEC	0,0253	mg/kg	
	Environment - oral (animal feed)		PNEC	313	mg/kg	
Consumer	Human - dermal	Long term, systemic effects	DNEL	51	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	70	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	24	mg/kg	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	84	mg/kg	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	238	mg/m3	

GB WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).
(8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).
(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.
(13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).

OELV-8h = Occupational Exposure Limit Value (8-hour reference period). (IFV) = Inhalable Fraction and Vapour. (I) = Inhalable Fraction. (R) = Respirable Fraction.
(8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (Directive 2004/37/CE). |
OELV-15min = Occupational Exposure Limit Value (15-minute reference period). (IFV) = Inhalable Fraction and Vapour. (I) = Inhalable Fraction. (R) = Respirable Fraction.
(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU. (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). |
BLV = Biological limit value |
Other information: Carc1A, Carc1B = carcinogenic substance, Cat. 1A or 1B. Muta1A, Muta1B = mutagenic substance, Cat. 1A or 1B. Repr1A, Repr1B = Substances known to be toxic for reproduction, Cat. 1A or 1B. Sk = can be absorbed through skin. Asphx = asphyxiant. Sen = Respiratory sensitizer. BOELV = Binding Occupational Exposure Limit Values. IOELV = Indicative Occupational Exposure Limit Values.
(13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).

M OELV-8h = Occupational Exposure Limit Value - 8 h (8-hour reference period as a time-weighted average)
[9] = Inhalable fraction (S.L.424.24), [10] = Respirable fraction (S.L.424.24).
(8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (Directive 2004/37/CE). |
OELV-ST = Occupational Exposure Limit Value - Short-term (15-minute reference period)
(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU).
[8] = Short-term exposure limit value in relation to a reference period of 1 minute. (S.L.424.24), [9] = Inhalable fraction (S.L.424.24), [10] = Respirable fraction (S.L.424.24) |
BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) |
Other information: Skin = Possibility of a significant uptake through the skin.
[11] = When selecting an appropriate exposure monitoring method , account should be taken of potential limitations and interferences that may arise in the presence of other sulphur compounds. (S.L.424.24), [12] = The mist is defined as the thoracic fraction. (S.L.424.24), [13] = Established in accordance with the Annex to Directive 91/322/EEC. (S.L.424.24), [14] = During exposure monitoring for mercury and its divalent inorganic compounds, account should be taken of relevant biological monitoring techniques that complement the OELV. (S.L.424.24).
(EU13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (EU14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).

8.2 Exposure controls
8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.
If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.
Applies only if maximum permissible exposure values are listed here.
Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.
These are specified by e.g. EN 14042.
EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment
General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:
Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:
Chemical resistant protective gloves (EN ISO 374).
If applicable
Protective nitrile gloves (EN ISO 374).
Minimum layer thickness in mm:
0,5
Permeation time (penetration time) in minutes:
480
Protective hand cream recommended.
The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.
The recommended maximum wearing time is 50% of breakthrough time.

Skin protection - Other:
Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:
Normally not necessary.
If OES or MEL is exceeded.
Gas mask filter A (EN 14387), code colour brown
Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:
Not applicable

Additional information on hand protection - No tests have been performed.
In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.
Selection of materials derived from glove manufacturer's indications.
Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls
No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Light yellow
Odour:	Characteristic
Melting point/freezing point:	There is no information available on this parameter.
Boiling point or initial boiling point and boiling range:	>200 °C
Flammability:	There is no information available on this parameter.
Lower explosion limit:	There is no information available on this parameter.
Upper explosion limit:	There is no information available on this parameter.
Flash point:	93 °C
Auto-ignition temperature:	There is no information available on this parameter.
Decomposition temperature:	There is no information available on this parameter.
pH:	Mixture is non-soluble (in water).
Kinematic viscosity:	There is no information available on this parameter.
Solubility:	Insoluble
Partition coefficient n-octanol/water (log value):	Does not apply to mixtures.
Vapour pressure:	There is no information available on this parameter.
Density and/or relative density:	0,9 g/cm3 (20°C)
Relative vapour density:	There is no information available on this parameter.
Particle characteristics:	Does not apply to liquids.

9.2 Other information
No information available at present.

SECTION 10: Stability and reactivity

10.1 Reactivity
The product has not been tested.

10.2 Chemical stability
Stable with proper storage and handling.

10.3 Possibility of hazardous reactions
No dangerous reactions are known.

10.4 Conditions to avoid
Heating, open flame, ignition sources

10.5 Incompatible materials
Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products
No decomposition when used as directed.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
Possibly more information on health effects, see Section 2.1 (classification).

Duftstoff Tropical Art.: 255999						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

Cis-2-tert-butylcyclohexyl acetate						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	4600	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative

Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	437	mg/kg	Rat	OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Develop m. Tox. Screening Test)	Negative

Dipentene						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	5300	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	5000	mg/kg	Rabbit		
Aspiration hazard:						Yes
Symptoms:						diarrhoea, rash, itching, gastrointestinal disturbances, mucous membrane irritation, nausea and vomiting.

Undecan-4-olide						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	18500	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitizising

Benzyl acetate						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	2490	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	> 5000	mg/kg	Rabbit		

3,7-dimethyloctan-3-ol						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit		
Skin corrosion/irritation:				Rabbit		Skin Irrit. 2
Serious eye damage/irritation:				Rabbit		Eye Irrit. 2
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Skin Sens. 1B

(E)-4-(2,6,6-trimethyl-1-cyclohexen-1-yl)-3-buten-2-one						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	4590	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat		

Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit		Not irritant
Respiratory or skin sensitisation:				Human being		Not sensitizising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative

Tetramethyl acetyloctahydronaphthalenes (OTNE)						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Human being	OECD 439 (In Vitro Skin Irritation - Reconstructed Human Epidermis Test Method)	Irritant
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Skin Sens. 1B
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Human being	OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negativemale
Germ cell mutagenicity:				Rat	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	150	mg/kg	Rat	OECD 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)	Target organ(s): liver, Target organ(s): gastrointestinal tract

Linalool						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	2790	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	5610	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Skin Irrit. 2
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Irrit. 2

Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Skin Sens. 1B
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative

4-tert-butylcyclohexyl acetate						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	3323	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	4680	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:					OECD 439 (In Vitro Skin Irritation - Reconstructed Human Epidermis Test Method)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Skin Sens. 1B

Benzyl salicylate						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	2227	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	14150	mg/kg	Rabbit		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Sensitising, Skin Sens. 1
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Symptoms:						mucous membrane irritation

3-p-cumenyl-2-methylpropionaldehyde						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	3810	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rat		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant

Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Sensitising (skin contact)

Coumarin

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	320	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Skin corrosion/irritation:				Rabbit	Regulation (EC) 440/2008 B.4 (DERMAL IRRITATION/CORROSION)	Not irritant
Serious eye damage/irritation:				Rabbit		Not irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitizising
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	>138,3	mg/kg bw/d	Mouse		

2-methylundecanal

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>10000	mg/kg	Rabbit		
Skin corrosion/irritation:				Guinea pig		Skin Irrit. 2
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Skin Sens. 1B

Ethyl 2,3-epoxy-3-phenylbutyrat

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit		

3-methyl-4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-3-buten-2-one

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit		

Dodecanal

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	23000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Yes (skin contact)

Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Symptoms:						mucous membrane irritation

cineole						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	2480	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit		
Skin corrosion/irritation:					OECD 439 (In Vitro Skin Irritation - Reconstructed Human Epidermis Test Method)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant, Analogous conclusion
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Yes (skin contact)

2,6-dimethylhept-5-enal						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit		

(2E)-3-phenyl-2-pentyl-prop-2-enal						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	3730	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	>5	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Yes (skin contact)

Tetrahydro-4-methyl-2-(2-methylprop-1-enyl)pyran						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	4300	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rat		

Citronellol						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	3450	mg/kg	Rat		RTECS
Acute toxicity, by dermal route:	LD50	2650	mg/kg	Rabbit		RTECS
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Skin Irrit. 2
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Irrit. 2

Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Yes (skin contact)
Respiratory or skin sensitisation:		25	%	Human being	(Patch-Test)	No (skin contact)solvent: ethanol:diethyl phthalate (1:3)
Germ cell mutagenicity:				Mammalian	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	NegativeChinese hamster
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative

[1.alpha.(E),2.beta.]-1-(2,6,6-trimethylcyclohex-3-en-1-yl)but-2-en-1-one

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	1400	mg/kg	Mouse		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:						Irritant
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Yes (skin contact)

(Z)-3-hexenyl salicylate

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	3339	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)
Aspiration hazard:						No

7-methyl-3-methyleneocta-1,6-diene

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit		
Aspiration hazard:						Yes
Symptoms:						mucous membrane irritation

Geraniol

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	3600	mg/kg	Rat	OECD 423 (Acute Oral Toxicity - Acute Toxic Class Method)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Skin Irrit. 2
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Dam. 1

Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Skin Sens. 1
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Mammalian	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	NegativeChinese hamster
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negativemale
Symptoms:						respiratory distress, coughing, mucous membrane irritation

11.2. Information on other hazards

Duftstoff Tropical Art.: 255999						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Endocrine disrupting properties:						Does not apply to mixtures.
Other information:						No other relevant information available on adverse effects on health.

(Z)-3-hexenyl salicylate						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Endocrine disrupting properties:						No

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

Duftstoff Tropical Art.: 255999							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and degradability:							n.d.a.
12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Endocrine disrupting properties:							Does not apply to mixtures.

12.7. Other adverse effects:							No information available on other adverse effects on the environment.
Other information:							DOC-elimination degree(complexing organic substance)>= 80%/28d: n.a.
Other information:	AOX			%			According to the recipe, contains no AOX.

Cis-2-tert-butylcyclohexyl acetate							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.3. Bioaccumulative potential:	Log Pow		4,75				High
12.1. Toxicity to fish:	LC50	96h	5,6	mg/l	Brachydanio rerio	Regulation (EC) 440/2008 C.1 (ACUTE TOXICITY FOR FISH)	
12.1. Toxicity to daphnia:	EC50	48h	17	mg/l	Daphnia magna	Regulation (EC) 440/2008 C.2 (DAPHNIA SP. ACUTE IMMOBILISATION TEST)	
12.1. Toxicity to algae:	EC50	72h	4,2	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	0,57	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	43	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Not readily biodegradable
12.3. Bioaccumulative potential:	BCF	33d	156			OECD 305 (Bioconcentration - Flow-Through Fish Test)	Oncorhynchus mykiss

Dipentene							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	EC50	96h	20,2	mg/l	Pimephales promelas		
12.1. Toxicity to fish:	LC50	96h	38,5	mg/l	Pimephales promelas		
12.1. Toxicity to daphnia:	EC50	48h	70	mg/l	Daphnia pulex		
12.1. Toxicity to daphnia:	EC50	48h	28,2	mg/l	Daphnia magna		
12.1. Toxicity to algae:	IC50	78h	13,798	mg/l	Pseudokirchneriella subcapitata		

12.2. Persistence and degradability:		28d	83	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		4,57				High
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Undecan-4-olide							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.2. Persistence and degradability:		28d	~82	%	activated sludge	OECD 301 D (Ready Biodegradability - Closed Bottle Test)	
12.3. Bioaccumulative potential:	Log Pow		3,6			OECD 117 (Partition Coefficient (n-octanol/water) - HPLC method)	25 °C
12.1. Toxicity to fish:	LC50	96h	21,5	mg/l	Leuciscus idus	DIN 38412 T.15	
12.1. Toxicity to daphnia:	EC50	21d	3,7	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,138	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to daphnia:	EC50	48h	5,85	mg/l	Daphnia magna	Regulation (EC) 440/2008 C.2 (DAPHNIA SP. ACUTE IMMOBILISATIO N TEST)	calculated value

Benzyl acetate							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.1. Toxicity to fish:	LC50	96h	4	mg/l	Oryzias latipes	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	17	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	48h	10	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	110	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	

12.1. Toxicity to algae:	NOEC/NOEL	72h	52	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	92	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		1,96				A notable biological accumulation potential is not to be expected (LogPow 1-3)., Low25 °C
12.3. Bioaccumulative potential:	BCF		8				Low, calculated value
Toxicity to bacteria:	EC50	3h	855	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	

3,7-dimethyloctan-3-ol							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.3. Bioaccumulative potential:	Log Pow		3,3				Low
12.3. Bioaccumulative potential:	BCF		99,87				Low
12.1. Toxicity to fish:	NOEC/NOEL	96h	5	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	LC50	96h	8,9	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.2. Persistence and degradability:		28d	64	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
12.1. Toxicity to daphnia:	EC50	48h	14,2	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	48h	8,2	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	13,2	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	

12.1. Toxicity to algae:	NOEC/NOEL	72h	8,5	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
Toxicity to bacteria:	EC50	30min	1000	mg/l	Pseudomonas putida		
Water solubility:			0,32	g/l			25°C

(E)-4-(2,6,6-trimethyl-1-cyclohexen-1-yl)-3-buten-2-one							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	96h	5,09	mg/l	Pimephales promelas		
12.1. Toxicity to daphnia:	EC50	48h	4,03	mg/l	Daphnia magna	DIN 38412 T.11	
12.1. Toxicity to algae:	EC50	72h	21,2	mg/l	Scenedesmus subspicatus	DIN 38412 T.9	
12.2. Persistence and degradability:		28d	80	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		4,1				Low
12.3. Bioaccumulative potential:	BCF		202,4				Low
Toxicity to bacteria:	EC50	30min	>10000	mg/l	Pseudomonas putida		

Tetramethyl acetyloctahydronaphthalenes (OTNE)							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.4. Mobility in soil:	Log Koc		4,1				
12.1. Toxicity to fish:	LC50	96h	1,3	mg/l	Lepomis macrochirus	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	LC50	30d	>0,3	mg/l	Brachydanio rerio	OECD 210 (Fish, Early-Life Stage Toxicity Test)	
12.1. Toxicity to fish:	NOEC/NOEL	30d	0,16	mg/l	Brachydanio rerio	OECD 210 (Fish, Early-Life Stage Toxicity Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,028	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to daphnia:	EC50	48h	1,38	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	>2,6	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	11	%	activated sludge	OECD 301 C (Ready Biodegradability - Modified MITI Test (I))	Not biodegradable

12.3. Bioaccumulative potential:	Log Pow		5,65			OECD 117 (Partition Coefficient (n-octanol/water) - HPLC method)	High30 °C
12.3. Bioaccumulative potential:	BCF	21d	391		Lepomis macrochirus	OECD 305 (Bioconcentration - Flow-Through Fish Test)	
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	NOEC/NOEL	42d	> 100	mg/l	activated sludge		Test guideline: OECD 301 F

Linalool

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	27,8	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	59	mg/l	Daphnia magna	DIN 38412 T.11	
12.1. Toxicity to algae:	EC50	96h	156,7	mg/l	Scenedesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:	BOD	28d	64,2	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		2,84			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	A notable biological accumulation potential is not to be expected (LogPow 1-3)., Low25 °C

4-tert-butylcyclohexyl acetate

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.1. Toxicity to fish:	LC50	96h	8,6	mg/l	Cyprinus caprio	Regulation (EC) 440/2008 C.1 (ACUTE TOXICITY FOR FISH)	
12.1. Toxicity to daphnia:	EC50	48h	5,3	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	22	mg/l	Scenedesmus subspicatus	Regulation (EC) 440/2008 C.3 (FRESHWATER ALGAE AND CYANOBACTERIA, GROWTH INHIBITION TEST)	

12.1. Toxicity to algae:	NOEC/NOEL	72h	6,8	mg/l	Scenedesmus subspicatus	Regulation (EC) 440/2008 C.3 (FRESHWATER ALGAE AND CYANOBACTERIA, GROWTH INHIBITION TEST)	
12.2. Persistence and degradability:	BOD5/COD	14d	88	%		Regulation (EC) 440/2008 C.4-C (DETERMINATION OF 'READY' BIODEGRADABILITY - CO2 EVOLUTION TEST)	Readily biodegradable
12.2. Persistence and degradability:		28d	75	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable
12.3. Bioaccumulative potential:	BCF		334,6				Low calculated
12.3. Bioaccumulative potential:	Log Pow		4,8			OECD 117 (Partition Coefficient (n-octanol/water) - HPLC method)	Low
Toxicity to bacteria:	EC50	3h	302	mg/l	activated sludge	Regulation (EC) 440/2008 C.11 (BIODEGRADATION - ACTIVATED SLUDGE RESPIRATION INHIBITION)	

Benzyl salicylate							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.1. Toxicity to fish:	LC50	96h	1,03	mg/l	Brachydanio rerio	84/449/EEC C.1	
12.1. Toxicity to daphnia:	EC50	48h	1,16	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	1,29	mg/l	Pseudokirchneriella subcapitata		
12.2. Persistence and degradability:		28d	93	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
12.3. Bioaccumulative potential:	BCF		311				Low
12.3. Bioaccumulative potential:	Log Pow		4				Low

3-p-cumenyl-2-methylpropionaldehyde

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to daphnia:	EC50	48h	4,19	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	4,3	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:			65,5	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Biodegradable
12.3. Bioaccumulative potential:	Log Kow		3,4			OECD 117 (Partition Coefficient (n-octanol/water) - HPLC method)	
Toxicity to bacteria:	EC50	3h	<100	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	

Coumarin

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	NOEC/NOEL	30d	0,191	mg/l			
12.1. Toxicity to fish:	LC50	96h	2,94	mg/l			
12.1. Toxicity to daphnia:	EC50	48h	13,5	mg/l	Daphnia magna		
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,5	mg/l			
12.1. Toxicity to algae:	NOEC/NOEL	72h	0,431	mg/l			
12.1. Toxicity to algae:	EC50	96h	1,452	mg/l			
12.2. Persistence and degradability:		28d	~90	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		1,39-1,51				A notable biological accumulation potential is not to be expected (LogPow 1-3)., Low

2-methylundecanal

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	0,35	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	

12.1. Toxicity to fish:	NOEC/NOEL	96h	0,11	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	48h	0,053	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	EC50	48h	0,21	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	0,18	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	0,089	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	68	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		4,9			OECD 117 (Partition Coefficient (n-octanol/water) - HPLC method)	High

3-methyl-4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-3-buten-2-one

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	10,9	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	3,1	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	7,47	mg/l	Selenastrum capricornutum		
12.2. Persistence and degradability:		28d	61,8	%	activated sludge	OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Biodegradable
12.3. Bioaccumulative potential:	Log Pow		4,7				

Dodecanal

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	2,6	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	

12.2. Persistence and degradability:		28d	73	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable

cineole							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.1. Toxicity to fish:	LC50	96h	57	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOEC/NOEL	96h	32	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	>100	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	48h	100	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	>74	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	37	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	82	%	activated sludge	OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
Toxicity to bacteria:	EC50	3h	>100	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	

(2E)-3-phenyl-2-pentyl-prop-2-enal							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.2. Persistence and degradability:		28d	90	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable

12.1. Toxicity to fish:	LC50	96h	3	mg/l	Brachydanio rerio	Regulation (EC) 440/2008 C.1 (ACUTE TOXICITY FOR FISH)	
12.1. Toxicity to daphnia:	EC50	48h	1,1	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	48h	0,4	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	1,88	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	0,154	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Toxicity to bacteria:	EC50	3h	>10000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	

Tetrahydro-4-methyl-2-(2-methylprop-1-enyl)pyran							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.2. Persistence and degradability:		28d	79	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
12.1. Toxicity to fish:	LC50	96h	77,6	mg/l			
12.1. Toxicity to daphnia:	EC50	48h	33,2	mg/l			
12.1. Toxicity to algae:	EC50	72h	79,7	mg/l			

Citronellol							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.1. Toxicity to fish:	LC50	96h	14,66	mg/l	Leuciscus idus	DIN 38412 T.15	calculated value
12.1. Toxicity to fish:	NOEC/NOEL	96h	4,6	mg/l	Leuciscus idus	DIN 38412 T.15	
12.1. Toxicity to daphnia:	EC50	48h	17,48	mg/l	Daphnia magna		79/831/EWG
12.1. Toxicity to algae:	EC50	72h	2,4	mg/l	Scenedesmus subspicatus		
12.1. Toxicity to daphnia:	NOEC/NOEL	48h	3,1	mg/l	Daphnia magna		

12.2. Persistence and degradability:		28d	90	%	activated sludge	OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
12.3. Bioaccumulative potential:	BCF		82,59				Low
12.3. Bioaccumulative potential:	Log Pow		3,41			Regulation (EC) 440/2008 A.8 (PARTITION COEFFICIENT)	Low25 °C
Toxicity to bacteria:	EC10	30min	580	mg/l	Pseudomonas putida	DIN 38412 T.27 (Draft)	

[1.alpha.(E),2.beta.]-1-(2,6,6-trimethylcyclohex-3-en-1-yl)but-2-en-1-one

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	0,97	mg/l	Oryzias latipes	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	21d	1,76	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,35	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to algae:	EC50	72h	4,54	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Toxicity to bacteria:	EC50	3h	241	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	

(Z)-3-hexenyl salicylate

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.1. Toxicity to fish:	LC50	96h	3,8	mg/l	Brachydanio rerio		
12.1. Toxicity to daphnia:	EC50	48h	2,7	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	0,61	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	89	%	activated sludge	OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable

Geraniol							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.2. Persistence and degradability:		28d	86	%		OECD 301 (Ready Biodegradability)	Readily biodegradable
12.1. Toxicity to fish:	LC50	96h	~ 22	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	LC50	96h	22	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to fish:	NOEC/NOEL	96h	10	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	7,75	mg/l			
12.1. Toxicity to daphnia:	EC50	48h	10,8	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC10	72h	3,77	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	EC50	72h	13,1	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	100	%		OECD 301 A (Ready Biodegradability - DOC Die-Away Test)	Readily biodegradable
12.2. Persistence and degradability:		28d	82	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		2,6			OECD 117 (Partition Coefficient (n-octanol/water) - HPLC method)	Low25 °C
Toxicity to bacteria:	EC50	96h	144	mg/l		ISO 8192	

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:
The waste codes are recommendations based on the scheduled use of this product.
Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)
07 07 04 other organic solvents, washing liquids and mother liquors
Recommendation:
Sewage disposal shall be discouraged.
Pay attention to local and national official regulations.
E.g. suitable incineration plant.
E.g. dispose at suitable refuse site.

For contaminated packing material

Pay attention to local and national official regulations.
Empty container completely.
Uncontaminated packaging can be recycled.
Dispose of packaging that cannot be cleaned in the same manner as the substance.

SECTION 14: Transport information

General statements

Transport by road/by rail (ADR/RID),

14.1. UN number or ID number: 3082
14.2. UN proper shipping name:
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CIS-2-tert-BUTYLCYCLOHEXYL ACETATE, DIPENTENE)

14.3. Transport hazard class(es): 9
14.4. Packing group: III
14.5. Environmental hazards: environmentally hazardous
Tunnel restriction code: -
Classification code: M6
LQ: 5 L
Transport category: 3

Transport by sea (IMDG-code)

14.1. UN number or ID number: 3082
14.2. UN proper shipping name:
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CIS-2-tert-BUTYLCYCLOHEXYL ACETATE, DIPENTENE)

14.3. Transport hazard class(es): 9
14.4. Packing group: III
14.5. Environmental hazards: environmentally hazardous
Marine Pollutant: Yes
EmS: F-A, S-F

Transport by air (IATA)

14.1. UN number or ID number: 3082
14.2. UN proper shipping name:
UN 3082 Environmentally hazardous substance, liquid, n.o.s. (CIS-2-tert-BUTYLCYCLOHEXYL ACETATE, DIPENTENE)

14.3. Transport hazard class(es): 9
14.4. Packing group: III
14.5. Environmental hazards: environmentally hazardous

14.6. Special precautions for user

Persons employed in transporting dangerous goods must be trained.
All persons involved in transporting must observe safety regulations.
Precautions must be taken to prevent damage.

14.7. Maritime transport in bulk according to IMO instruments

Freighted as packaged goods rather than in bulk, therefore not applicable.
Minimum amount regulations have not been taken into account.
Danger code and packing code on request.
Comply with special provisions.

SECTION 15: Regulatory information

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

Observe restrictions:
Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)!
Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!
Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered according to storage, handling etc.):

Hazard categories	Notes to Annex I	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Lower-tier requirements	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Upper-tier requirements
E2		200	500

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC): 6,9 %

Observe incident regulations.

National requirements/regulations on safety and health protection must be applied when using work equipment.

15.2 Chemical safety assessment
A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: n.a.
Employee training in handling dangerous goods is required.
These details refer to the product as it is delivered.
Employee instruction/training in handling hazardous materials is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Skin Irrit. 2, H315	Classification according to calculation procedure.
Skin Sens. 1, H317	Classification according to calculation procedure.
Aquatic Chronic 2, H411	Classification according to calculation procedure.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).
H361f Suspected of damaging fertility.
H226 Flammable liquid and vapour.
H317 May cause an allergic skin reaction.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Skin Irrit. — Skin irritation
Skin Sens. — Skin sensitization
Aquatic Chronic — Hazardous to the aquatic environment - chronic

Flam. Liq. — Flammable liquid
Asp. Tox. — Aspiration hazard
Aquatic Acute — Hazardous to the aquatic environment - acute
Acute Tox. — Acute toxicity - oral
STOT RE — Specific target organ toxicity - repeated exposure
Eye Irrit. — Eye irritation
Acute Tox. — Acute toxicity - dermal
Acute Tox. — Acute toxicity - inhalation
Repr. — Reproductive toxicity
Eye Dam. — Serious eye damage

Key literature references and sources for data:

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.
Guidelines for the preparation of safety data sheets as amended (ECHA).
Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).
Safety data sheets for the constituent substances.
ECHA Homepage - Information about chemicals.
GESTIS Substance Database (Germany).
German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).
EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.
National Lists of Occupational Exposure Limits for each country as amended.
Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

Any abbreviations and acronyms used in this document:

acc., acc. to according, according to
ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOX Adsorbable organic halogen compounds
approx. approximately
Art., Art. no. Article number
ASTM ASTM International (American Society for Testing and Materials)
ATE Acute Toxicity Estimate
BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
BCF Bioconcentration factor
BSEF The International Bromine Council
bw body weight
CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR carcinogenic, mutagenic, reproductive toxic
DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
DOC Dissolved organic carbon
dw dry weight
e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
EbCx, EyCx, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)
EC European Community
ECHA European Chemicals Agency
ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect
EEC European Economic Community
EINECS European Inventory of Existing Commercial Chemical Substances
ELINCS European List of Notified Chemical Substances
EN European Norms
EPA United States Environmental Protection Agency (United States of America)
ErCx, EμCx, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)
etc. et cetera

EU European Union
EVAL Ethylene-vinyl alcohol copolymer
Fax. Fax number
gen. general
GHS Globally Harmonized System of Classification and Labelling of Chemicals
GWP Global warming potential
Koc Adsorption coefficient of organic carbon in the soil
Kow octanol-water partition coefficient
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IBC (Code) International Bulk Chemical (Code)
IMDG-code International Maritime Code for Dangerous Goods
incl. including, inclusive
IUCLID International Uniform Chemical Information Database
IUPAC International Union for Pure Applied Chemistry
LC50 Lethal Concentration to 50 % of a test population
LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)
Log Koc Logarithm of adsorption coefficient of organic carbon in the soil
Log Kow, Log Pow Logarithm of octanol-water partition coefficient
LQ Limited Quantities
MARPOL International Convention for the Prevention of Marine Pollution from Ships
n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available
NIOSH National Institute for Occupational Safety and Health (USA)
NLP No-longer-Polymer
NOEC, NOEL No Observed Effect Concentration/Level
OECD Organisation for Economic Co-operation and Development
org. organic
OSHA Occupational Safety and Health Administration (USA)
PBT persistent, bioaccumulative and toxic
PE Polyethylene
PNEC Predicted No Effect Concentration
ppm parts per million
PVC Polyvinylchloride
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SVHC Substances of Very High Concern
Tel. Telephone
TOC Total organic carbon
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative
wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.
No responsibility.
These statements were made by:

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