

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 12/2/2019 Revision date: 12/27/2024 Supersedes version of: 12/12/2023 Version: 2.1

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

#### 1.1. Product identifier

Product form : Mixture
Trade name : Duftöl: Tulips

UFI : R4W0-C1UY-E002-U0P6

Product code :

Type of product : Perfumes, fragrances
Product group : Trade product

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

#### 1.2.1. Relevant identified uses

Main use category : Professional use, Industrial use

Industrial/Professional use spec : Industrial

For professional use only
: Perfumes, fragrances
: Odour agents

# 1.2.2. Uses advised against

Use of the substance/mixture

Function or use category

No additional information available

## 1.3. Details of the supplier of the safety data sheet

Hansawax GmbH Lloyd Industriepark Richard-Dunkel-Straße 120 DE– 28199 Bremen T 49-421-57890808

hallo@hansawax.de - www.hansawax.de

### 1.4. Emergency telephone number

Emergency number : 1-800-255-3924; +01-813-248-0585; China:+400-120-0751; Mexico:+01-800-099-0731;

Brazil: +0-800-591-6042; India: +000-800-100-4086

### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

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

Acute toxicity (oral), Category 4 H302
Serious eye damage/eye irritation, Category 2 H319
Skin sensitisation, Category 1 H317
Hazardous to the aquatic environment – Acute Hazard,
Category 1

Unicycly

Hazardous to the aquatic environment – Chronic Hazard, H411

Category 2

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

# Adverse physicochemical, human health and environmental effects

Harmful if swallowed. Causes serious eye irritation. Toxic to aquatic life with long lasting effects. May cause an allergic skin reaction. Very toxic to aquatic life.

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#### 2.2. Label elements

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

Hazard pictograms (CLP)





GHS07

GHS09

Signal word (CLP) : Warning

Contains : benzyl benzoate; Phenylethyl alcohol; Linalool; Amyl cinnamic aldehyde; Isocyclocitral;

Elemi oil; Eugenol; 3-(2,2-dimethyl-3-hydroxypropyl)toluene; (alt.): 2,2-dimethyl-3-(3-methylphenyl)propanol; Hydroxy; Cinnamic alcohol; Citronellol Pure; citral; Adoxal; Triplal

(Vertocitral)

Hazard statements (CLP) : H302 - Harmful if swallowed.

H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation.

H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product.

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

P273 - Avoid release to the environment.

P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection.

Extra phrases : For professional users only.

#### 2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

# **SECTION 3: Composition/information on ingredients**

# 3.1. Substances

Not applicable

# 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
benzyl benzoate	CAS-No.: 120-51-4 EC-No.: 204-402-9 EC Index-No.: 607-085-00-9 REACH-no: 01-2119976371- 33	35.2 – 70.33	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Phenylethyl alcohol	CAS-No.: 60-12-8 EC-No.: 200-456-2 REACH-no: 01-2119963921- 31	2 – 4	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319
Linalool	CAS-No.: 78-70-6 EC-No.: 201-134-4 EC Index-No.: 603-235-00-2 REACH-no: 01-2119474016-	1.5 – 2.9	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Verdyl acetate	CAS-No.: 5413-60-5 EC-No.: 226-501-6	1.3 – 2.65	Aquatic Chronic 3, H412
Amyl cinnamic aldehyde	CAS-No.: 122-40-7 EC-No.: 204-541-5	1 – 2	Skin Sens. 1B, H317 Aquatic Chronic 2, H411
Isocyclocitral	CAS-No.: 1335-66-6 EC-No.: 215-638-7	0.8 – 1.5	Eye Irrit. 2, H319 Skin Sens. 1B, H317 Aquatic Chronic 3, H412
Terpineol	CAS-No.: 8000-41-7 EC-No.: 232-268-1	0.8 – 1.5	Skin Irrit. 2, H315 Eye Irrit. 2, H319
Elemi oil	CAS-No.: 8023-89-0	0.8 – 1.5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Eugenol	CAS-No.: 97-53-0 EC-No.: 202-589-1 REACH-no: 01-2119971802- 33	0.6 – 1.1	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317
3-(2,2-dimethyl-3-hydroxypropyl)toluene; (alt.): 2,2-dimethyl-3-(3-methylphenyl)propanol	CAS-No.: 103694-68-4 EC-No.: 403-140-4 EC Index-No.: 603-138-00-5	0.006 – 1.1	Skin Sens. 1, H317 Aquatic Chronic 3, H412
Amyl salicylate	CAS-No.: 2050-08-0 EC-No.: 218-080-2 REACH-no: 01-2119969444- 27	0.5 – 0.9	Acute Tox. 4 (Oral), H302 Aquatic Chronic 1, H410
Cinnamic alcohol	CAS-No.: 104-54-1 EC-No.: 203-212-3 REACH-no: 01-2119934496- 29	0.4 – 0.85	Acute Tox. 4 (Oral), H302 Skin Sens. 1B, H317
Carbitol substance with national workplace exposure limit(s) (AT, DE, EE, SE, SI, CH)	CAS-No.: 111-90-0 EC-No.: 203-919-7 REACH-no: 01-2119475105- 42	0.43398 – 0.79563	Not classified
Camphor substance with national workplace exposure limit(s) (AT, BE, BG, DK, ES, FI, FR, GB, GR, HR, IE, LT, PL, PT, RO, SK, NO, CH)	CAS-No.: 76-22-2 EC-No.: 200-945-0	0.3 – 0.6	Flam. Sol. 2, H228 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 2, H371 Aquatic Chronic 2, H411
Citronellol Pure	CAS-No.: 106-22-9 EC-No.: 203-375-0 REACH-no: 01-2119453995- 23	0.3 – 0.6	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
citral substance with national workplace exposure limit(s) (BE, ES, IE, PL, PT)	CAS-No.: 5392-40-5 EC-No.: 226-394-6 EC Index-No.: 605-019-00-3 REACH-no: 01-2119462829- 23	0.2 – 0.4	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Adoxal	CAS-No.: 141-13-9 EC-No.: 205-460-8 REACH-no: 01-2120139915-	0.2 – 0.4	Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Skin Sens. 1B, H317
Hydroxy	CAS-No.: 107-75-5 EC-No.: 203-518-7 REACH-no: 01-2119973482- 31	0.24644 – 0.38514	Eye Irrit. 2, H319 Skin Sens. 1B, H317
Triplal (Vertocitral)	CAS-No.: 68039-49-6 EC-No.: 268-264-1	0.1 – 0.2363	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412
Alcohol C-10 substance with national workplace exposure limit(s) (BG, DE, LT, LV, RO, CH)	CAS-No.: 112-30-1 EC-No.: 203-956-9	0 – 0.021	Aquatic Chronic 3, H412
Aldehyde C-6 substance with national workplace exposure limit(s) (FI, PL)	CAS-No.: 66-25-1 EC-No.: 200-624-5	0 – 0.0053	Flam. Liq. 3, H226
Caproic acid substance with national workplace exposure limit(s) (BG, LT, LV)	CAS-No.: 142-62-1 EC-No.: 205-550-7	0 - 0.0003	Eye Dam. 1, H318 Skin Corr. 1C, H314
butyric acid substance with national workplace exposure limit(s) (BG, LT, LV, RO)	CAS-No.: 107-92-6 EC-No.: 203-532-3 EC Index-No.: 607-135-00-X	0 – 0.0001	Skin Corr. 1B, H314

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

# **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

First-aid measures general

First-aid measures after inhalation

First-aid measures after skin contact

First-aid measures after eye contact

First-aid measures after ingestion

- : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Call a poison center or a doctor if you feel unwell.
- Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.
- Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see Get medical advice/attention. on this label). If skin irritation occurs: Get medical advice/attention. Wash with plenty of water/.... Get medical advice/attention. Wash contaminated clothing before reuse. Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
- : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER/doctor if you feel unwell. Call a poison center or a doctor if you feel

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

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after skin contact : May cause an allergic skin reaction.

Symptoms/effects after eye contact : Eye irritation.

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

Treat symptomatically.

## **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

# **SECTION 6: Accidental release measures**

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin and eyes.

Avoid breathing dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew

with proper protection. For further information refer to section 8: "Exposure

controls/personal protection".

Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or

diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

Other information : Dispose of materials or solid residues at an authorized site.

## 6.4. Reference to other sections

See Section 8. Exposure controls and personal protection. For further information refer to section 13.

# **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wash hands and other exposed areas with mild

soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing

 $\ dust/fume/gas/mist/vapours/spray. \ No \ open \ flames. \ No \ smoking. \ Avoid \ contact \ with \ skin$ 

and eyes. Wear personal protective equipment.

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Hygiene measures

: Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Wash hands thoroughly after handling. Always wash hands after handling the product.

# 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

: Keep only in the original container in a cool, well ventilated place away from : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container closed when not in use. Keep in fireproof place. Store in a well-ventilated place.

Keep cool.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

Storage temperature : 25 °C

Storage area : Store in a well-ventilated place. Store away from heat.

Special rules on packaging : Store in a closed container.
Packaging materials : Do not store in corrodable metal.

# 7.3. Specific end use(s)

No additional information available

# SECTION 8: Exposure controls/personal protection

# 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

Carbitol (111-90-0)		
Austria - Occupational Exposure Limits		
MAK (OEL TWA)	35 mg/m³	
	6 ppm	
MAK (OEL STEL)	140 mg/m³	
	24 ppm	
Estonia - Occupational Exposure Limits		
OEL TWA	50.1 mg/m³	
	10 ppm	
OEL chemical category	Skin notation	
Germany - Occupational Exposure Limits (TRGS 90	00)	
AGW (OEL TWA)	35 mg/m³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)	
	6 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)	
Slovenia - Occupational Exposure Limits		
OEL TWA	35 mg/m³	
	6 ppm	
OEL STEL	70 mg/m³	
	12 ppm	
Sweden - Occupational Exposure Limits		
NGV (OEL TWA)	80 mg/m³	
	15 ppm	
KGV (OEL STEL)	170 mg/m³	

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Carbitol (111-90-0)		
	30 ppm	
OEL chemical category	Skin notation	
Switzerland - Occupational Exposure Limits		
MAK (OEL TWA)	50 mg/m³ (aerosol, inhalable dust, vapour)	
KZGW (OEL STEL)	100 mg/m³ (aerosol, inhalable dust, vapour)	
Camphor (76-22-2)		
Austria - Occupational Exposure Limits		
MAK (OEL TWA)	13 mg/m³	
	2 ppm	
Belgium - Occupational Exposure Limits		
OEL TWA	12 mg/m³	
	2 ppm	
OEL STEL	19 mg/m³	
	3 ppm	
Bulgaria - Occupational Exposure Limits		
OEL TWA	12 mg/m³	
OEL STEL	18 mg/m³	
Croatia - Occupational Exposure Limits		
GVI (OEL TWA)	13 mg/m³	
	2 ppm	
KGVI (OEL STEL)	19 mg/m³	
	3 ppm	
Denmark - Occupational Exposure Limits		
OEL TWA	12 mg/m³	
	2 ppm	
OEL STEL	24 mg/m³	
	4 ppm	
Finland - Occupational Exposure Limits		
HTP (OEL TWA)	1.9 mg/m³	
	0.3 ppm	
HTP (OEL STEL)	5.7 mg/m³	
	0.9 ppm	
France - Occupational Exposure Limits		
VME (OEL TWA)	12 mg/m³	
	2 ppm	
Greece - Occupational Exposure Limits		
OEL TWA	12 mg/m³ (inhalable fraction)	
OEL STEL	18 mg/m³	

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Iza mg/m²           OEL TWA         12 mg/m²           OEL STEL         18 mg/m²           OEL STEL         18 mg/m²           3 ppm         18 mg/m²           3 ppm         18 mg/m²           IT MINION TO TANA TO	Camphor (76-22-2)		
Page	Ireland - Occupational Exposure Limits		
OEL STEL         18 mg/m²           Lithuania - Occupational Exposuro Limits         Image m²           PRV (OEL TWA)         3 mg/m²           Polond - Occupational Exposure Limits         Image m²           NDSCh (OEL STEL)         18 mg/m²           PORTURAN         2 ppm           OEL TWA         2 ppm           OEL STEL         3 ppm           OEL STEL         4A - Not Classifiable as a Human Carcinogen           Romania - Occupational Exposure Limits         1 mg/m²           OEL STEL         3 mg/m²           18 ppm         3 ppm           Solari - Occupational Exposure Limits         3 mg/m²           PVLV (DEL TWA)         13 mg/m²           2 ppm         3 ppm           VLA-ED (OEL TWA)         13 mg/m²           2 ppm         3 ppm           VLA-ED (OEL TWA)         13 mg/m²           2 ppm         3 ppm           VLA-ED (OEL TWA)         13 mg/m²           2 ppm         3 ppm           WEL TWA (OEL TWA)	OEL TWA	12 mg/m³	
Lithuania - Occupational Exposure Limits           Lire V (OEL TWA)         3 mg/m²           Poland - Occupational Exposure Limits         12 mg/m²           NDS (OEL TWA)         12 mg/m²           NDS (CH STEL)         18 mg/m²           Portugal - Occupational Exposure Limits         2 ppm           OEL TWA         2 ppm           OEL chemical category         A4 - Not Classifiable as a Human Cardinogen           Romania - Occupational Exposure Limits         1 mg/m²           OEL STEL         3 mg/m²           6 ppm         6 ppm           OEL STEL         3 mg/m²           18 ppm         1 mg/m²           Stowakia - Occupational Exposure Limits         1 mg/m²           NPHV (OEL TWA)         2 ppm           NPHV (OEL TWA)         2 mg/m²           Spain - Occupational Exposure Limits         1 mg/m²           VL-EC (OEL STEL)         19 mg/m²           3 ppm         2 ppm           VL-EC (OEL STEL)         19 mg/m²           4 ppm         2 ppm           United Kingdom - Occupational Exposure Limits         2 ppm           United Kingdom - Occupational Exposure Limits         2 ppm           WEL TWA (OEL TWA)         13 mg/m²           3 ppm		2 ppm	
Lithuania - Occupational Exposure Limits         a mg/m²           POIAT (OEL TWA)         12 mg/m²           NDS (OEL TWA)         12 mg/m²           NDS (OEL TWA)         18 mg/m²           NDSCh (OEL STEL)         18 mg/m²           POPTUGAI - Occupational Exposure Limits         2 ppm           OEL TWA         2 ppm           OEL STEL         3 ppm           OEL HAM         4 - Not Classifiable as a Human Carcinogen           Romania - Occupational Exposure Limits         6 ppm           OEL STEL         3 mg/m²           4 ppm         18 ppm           Stovakia - Occupational Exposure Limits         NPHV (OEL TWA)           NPHV (OEL TWA)         13 mg/m²           2 ppm         2 ppm           NPHV (OEL TWA)         2 mg/m²           Spin - Occupational Exposure Limits         YLA-ED (OEL TWA)           YLA-ED (OEL TWA)         13 mg/m²           2 ppm         YLA-ED (OEL TWA)           United Kingdom - Occupational Exposure Limits         YLA-ED (OEL TWA)           WEL TWA (OEL TWA)         13 mg/m²           2 ppm         Portical Company of the properties	OEL STEL	18 mg/m³	
IPRV (OEL TWA)         3 mg/m²           Poland - Occupational Exposure Limits         12 mg/m²           NDSC (OEL TWA)         18 mg/m²           NDSCN (OEL STEL)         18 mg/m²           Portugal - Occupational Exposure Limits         2 ppm           OEL TWA         2 ppm           OEL STEL         3 ppm           OEL Chemical category         At - Not Classifiable as a Human Carcinogen           Romania - Occupational Exposure Limits         1 mg/m²           GEL TWA         1 mg/m²           18 ppm         18 ppm           Slovakia - Occupational Exposure Limits         18 ppm           Slovakia - Occupational Exposure Limits         19 mg/m²           PMFV (OEL TWA)         2 mg/m²           Spain - Occupational Exposure Limits         19 mg/m²           VL-EC (OEL TWA)         1 mg/m²           VL-EC (OEL STEL)         19 mg/m²           19 ppm         19 mg/m²           10 ppm         10 ppm           VL-EC (OEL STEL)         19 mg/m²           10 ppm         10 ppm           VL-EC (OEL STEL)         19 mg/m²           10 ppm         10 ppm           VL-EC (OEL STEL)         10 ppm           10 ppm         10 ppm           <		3 ppm	
Poland - Occupational Exposure Limits           NDS (OEL TWA)         12 mg/m³           NDSCh (OEL STEL)         18 mg/m³           Portugal - Occupational Exposure Limits         2 ppm           OEL TWA         2 ppm           OEL STEL         3 ppm           OEL oremical category         Ad - Not Classifiable as a Human Carcinogen           Romania - Occupational Exposure Limits         1 mg/m³           OEL STEL         3 mg/m³           6 ppm         6 ppm           Slovakia - Occupational Exposure Limits         18 mg/m³           NPHV (OEL TWA)         18 mg/m³           2 ppm         Phylocupational Exposure Limits           VLA-EO (OEL TWA)         13 mg/m³           2 ppm         Phylocupational Exposure Limits           VLA-EO (OEL STEL)         19 mg/m³           3 ppm         Phylocupational Exposure Limits           United Kingdom - Occupational Exposure Limits         Phylocupational Exposure Limits           Wet STEL (OEL STEL)         19 mg/m³           3 ppm         19 mg/m³           3 ppm           Norway - Occupational Exposure Limits         Phylocupational Exposure Limits           Norway - Occupational Exposure Limits         12 mg/m² <td>Lithuania - Occupational Exposure Limits</td> <td></td>	Lithuania - Occupational Exposure Limits		
NDS (CEL TWA)         12 mg/m³           NDSCh (CEL STEL)         18 mg/m³           Portugal - Occupational Exposure Limits           CEL TWA         2 ppm           OEL STEL         3 ppm           CEL Chemical category         4 - Not Classifiable as a Human Carcinogen           Romania - Occupational Exposure Limits           Time for many parameters of	IPRV (OEL TWA)	3 mg/m³	
NDSCh (OEL STEL)         18 mg/m³           Portugal - Occupational Exposure Limits         2 ppm           OEL TWA         2 ppm           OEL STEL         3 ppm           OEL chemical category         A4 - Not Classifiable as a Human Carcinogen           Romania - Occupational Exposure Limits         1 mg/m³           OEL TWA         1 mg/m³           6 ppm         3 mg/m²           18 ppm         1 mg/m³           Slowakia - Occupational Exposure Limits         1 mg/m³           NPHV (OEL TWA)         2 mg/m³           NPHV (OEL TWA)         13 mg/m³           Spain - Occupational Exposure Limits         1 mg/m³           YLA-ED (OEL TWA)         13 mg/m³           VLA-ED (OEL TWA)         19 mg/m³           VLA-ED (OEL STEL)         10 mg/m³           VLA-ED (OEL STEL)         10 mg/m³           VLA-ED (OEL STEL)         10 mg/m³           VLA-ED (OEL TWA)         2 ppm           WEL TWA (OEL TWA)         2 ppm           WEL STEL (OEL STEL)         10 mg/m³           3 ppm         2 ppm <t< td=""><td>Poland - Occupational Exposure Limits</td><td></td></t<>	Poland - Occupational Exposure Limits		
Portugal - Occupational Exposure Limits           OEL TWA         2 ppm           OEL STEL         3 ppm           OEL chemical category         A4 - Not Classifiable as a Human Carcinogen           Romania - Occupational Exposure Limits           OEL STEL         1 mg/m³           6 ppm         3 mg/m³           5 lovakia - Occupational Exposure Limits         13 mg/m³           NPHV (OEL TWA)         13 mg/m³           2 ppm           NPHV (OEL C)         26 mg/m³           Spain - Occupational Exposure Limits           VLA-ED (OEL TWA)         13 mg/m³           2 ppm           VLA-ED (OEL STEL)         19 mg/m³           10 mg/m³         3 ppm           United Kingdom - Occupational Exposure Limits         13 mg/m³           WEL TWA (OEL TWA)         13 mg/m³           2 ppm           WEL TWA (OEL TWA)         19 mg/m³           3 ppm           WEL TWA (OEL TWA)         19 mg/m³           3 ppm           Well STEL (OEL STEL)         19 mg/m³           3 ppm           Norway - Occupational Exposure Limits           Kortidsverd (OEL TWA)         12 mg/m³           12 mg/m³	NDS (OEL TWA)	12 mg/m³	
OEL TWA         2 ppm           OEL STEL         3 ppm           OEL chemical category         A4 - Not Classifiable as a Human Carcinogen           Romania - Occupational Exposure Limits           OEL TWA         1 mg/m³           6 ppm           OEL STEL         3 mg/m³           18 ppm           Slovakia - Occupational Exposure Limits           NPHV (OEL TWA)         13 mg/m³           2 ppm           NPHV (OEL C)         26 mg/m³           Spain - Occupational Exposure Limits           VLA-EQ (OEL TWA)         13 mg/m³           2 ppm           VLA-EQ (OEL STEL)         19 mg/m³           3 ppm           United Kingdom - Occupational Exposure Limits           WEL TWA (OEL TWA)         13 mg/m³           2 ppm           WeL STEL (OEL STEL)         19 mg/m³           3 ppm           VLA-EQ (SEL TWA)         19 mg/m³           2 ppm           Well STEL (OEL STEL)         19 mg/m³           3 ppm           Norway - Occupational Exposure Limits           For severedi (OEL TWA)         2 mg/m³           2 ppm           Norway - Occupational Exposure Limits	NDSCh (OEL STEL)	18 mg/m³	
OEL STEL         3 ppm           OEL chemical category         A4 - Not Classifiable as a Human Carcinogen           Romania - Occupational Exposure Limits         1 mg/m²           6 ppm           OEL STEL         3 mg/m³           1 8 ppm           Slovakia - Occupational Exposure Limits           NPHV (OEL TWA)         13 mg/m³           2 ppm           NPHV (OEL C)         26 mg/m³           Spain - Occupational Exposure Limits           VLA-ED (OEL TWA)         13 mg/m³           2 ppm           VLA-EC (OEL STEL)         19 mg/m³           3 ppm           United Kingdom - Occupational Exposure Limits           WEL TWA (OEL TWA)         13 mg/m³           2 ppm           WEL STEL (OEL STEL)         19 mg/m³           3 ppm           Norway - Occupational Exposure Limits           Fenseverdi (OEL TWA)         12 mg/m³           2 ppm           Kortidisverdi (OEL STEL)         18 mg/m³ (value calculated)	Portugal - Occupational Exposure Limits		
OEL chemical category         A4 - Not Classifiable as a Human Carcinogen           Romania - Occupational Exposure Limits           OEL TWA         1 mg/m³           6 ppm           OEL STEL         3 mg/m³           1 ppm           Slovakia - Occupational Exposure Limits           NPHV (OEL TWA)         13 mg/m³           2 ppm           NPHV (OEL C)         26 mg/m³           Spain - Occupational Exposure Limits           VLA-ED (OEL TWA)         13 mg/m³           2 ppm           VLA-EC (OEL STEL)         19 mg/m³           3 ppm           United Kingdom - Occupational Exposure Limits           WEL TWA (OEL TWA)         13 mg/m³           2 ppm           WEL STEL (OEL STEL)         19 mg/m³           3 ppm           Norway - Occupational Exposure Limits           Grenseverdi (OEL TWA)         12 mg/m³           2 ppm           Kortidsverdi (OEL STEL)         18 mg/m³ (value calculated)	OEL TWA	2 ppm	
Romania - Occupational Exposure Limits           OEL TWA         1 mg/m³           6 ppm         6 ppm           OEL STEL         3 mg/m³           18 ppm         18 ppm           Slovakia - Occupational Exposure Limits         13 mg/m³           NPHV (OEL TWA)         2 ppm           NPHV (OEL C)         26 mg/m³           Spain - Occupational Exposure Limits         13 mg/m³           VLA-ED (OEL TWA)         13 mg/m³           2 ppm           United Kingdom - Occupational Exposure Limits           WEL TWA (OEL TWA)         13 mg/m³           2 ppm           WEL STEL (OEL STEL)         19 mg/m³           3 ppm           Norway - Occupational Exposure Limits           Genseverdi (OEL TWA)         12 mg/m³           5 ppm           Norway - Occupational Exposure Limits           Kortidisverdi (OEL STEL)         12 mg/m³           2 ppm           Kortidisverdi (OEL STEL)         18 mg/m³ (value calculated)	OEL STEL	3 ppm	
OEL TWA         1 mg/m³           6 ppm           OEL STEL         3 mg/m³           18 ppm           Slovakia - Occupational Exposure Limits           NPHV (OEL TWA)         13 mg/m³           2 ppm           NPHV (OEL C)         26 mg/m³           Spain - Occupational Exposure Limits           VLA-ED (OEL TWA)         13 mg/m³           2 ppm           VLA-EC (OEL STEL)         19 mg/m³           3 ppm           United Kingdom - Occupational Exposure Limits           WEL TWA (OEL TWA)         13 mg/m³           2 ppm           WEL STEL (OEL STEL)         19 mg/m³           3 ppm           Norway - Occupational Exposure Limits           Senseverdi (OEL STEL)         12 mg/m³           2 ppm           Kortidsverdi (OEL STEL)         12 mg/m³           2 ppm	OEL chemical category	A4 - Not Classifiable as a Human Carcinogen	
Simple   Figure	Romania - Occupational Exposure Limits		
OEL STEL         3 mg/m³           18 ppm           Slovakia - Occupational Exposure Limits           NPHV (OEL TWA)         13 mg/m³           2 ppm           NPHV (OEL C)         26 mg/m³           Spain - Occupational Exposure Limits           VLA-ED (OEL TWA)         13 mg/m³           2 ppm           VLA-EC (OEL STEL)         19 mg/m³           3 ppm           United Kingdom - Occupational Exposure Limits           WEL TWA (OEL TWA)         13 mg/m³           2 ppm           WEL STEL (OEL STEL)         19 mg/m³           3 pm           Norway - Occupational Exposure Limits           Roseverdi (OEL TWA)         12 mg/m³           2 ppm           Kortidsverdi (OEL STEL)         18 mg/m³ (value calculated)	OEL TWA	1 mg/m³	
Slovakia - Occupational Exposure Limits   NPHV (OEL TWA)   13 mg/m³   2 ppm     NPHV (OEL C)   26 mg/m³     Spain - Occupational Exposure Limits   VLA-ED (OEL TWA)   13 mg/m³   2 ppm     VLA-ED (OEL TWA)   2 ppm     VLA-ED (OEL STEL)   19 mg/m³   3 ppm     United Kingdom - Occupational Exposure Limits   WEL TWA (OEL TWA)   13 mg/m³   2 ppm     WEL TWA (OEL TWA)   2 ppm     WEL STEL (OEL STEL)   19 mg/m³   3 ppm     Norway - Occupational Exposure Limits   Norway - Occupational Exposure Limits   12 mg/m³   2 ppm     Kortidsverdi (OEL TWA)   18 mg/m³ (value calculated)		6 ppm	
Slovakia - Occupational Exposure Limits           NPHV (OEL TWA)         13 mg/m³           2 ppm         2 ppm           NPHV (OEL C)         26 mg/m³           Spain - Occupational Exposure Limits           VLA-ED (OEL TWA)         13 mg/m³           2 ppm           VLA-EC (OEL STEL)         19 mg/m³           3 ppm           United Kingdom - Occupational Exposure Limits           WEL TWA (OEL TWA)         13 mg/m³           2 ppm           WEL STEL (OEL STEL)         19 mg/m³           3 ppm           Norway - Occupational Exposure Limits           Renseverdi (OEL TWA)           12 mg/m³           2 ppm           Korttidsverdi (OEL STEL)         12 mg/m³           2 ppm	OEL STEL	3 mg/m³	
NPHV (OEL TWA)         13 mg/m³           2 ppm           NPHV (OEL C)         26 mg/m³           Spain - Occupational Exposure Limits           VLA-ED (OEL TWA)         13 mg/m³           2 ppm           VLA-EC (OEL STEL)         19 mg/m³           3 ppm           United Kingdom - Occupational Exposure Limits           WEL TWA (OEL TWA)         13 mg/m³           2 ppm           WEL STEL (OEL STEL)         19 mg/m³           3 ppm           Norway - Occupational Exposure Limits           Grenseverdi (OEL TWA)         12 mg/m³           2 ppm           Korttidsverdi (OEL STEL)         18 mg/m³ (value calculated)		18 ppm	
NPHV (OEL C)         2 ppm           Spain - Occupational Exposure Limits           VLA-ED (OEL TWA)         13 mg/m³           2 ppm           VLA-EC (OEL STEL)         19 mg/m³           3 ppm           United Kingdom - Occupational Exposure Limits           WEL TWA (OEL TWA)         13 mg/m³           2 ppm           WEL STEL (OEL STEL)         19 mg/m³           3 ppm           Norway - Occupational Exposure Limits           Grenseverdi (OEL TWA)         12 mg/m³           2 ppm           Korttidsverdi (OEL STEL)         18 mg/m³ (value calculated)	Slovakia - Occupational Exposure Limits		
NPHV (OEL C)         26 mg/m³           Spain - Occupational Exposure Limits           VLA-ED (OEL TWA)         13 mg/m³           2 ppm           VLA-EC (OEL STEL)           19 mg/m³           3 ppm           United Kingdom - Occupational Exposure Limits           WEL TWA (OEL TWA)         13 mg/m³           2 ppm           WEL STEL (OEL STEL)         19 mg/m³           3 ppm           Norway - Occupational Exposure Limits           Grenseverdi (OEL TWA)         12 mg/m³           2 ppm           Korttidsverdi (OEL STEL)         18 mg/m³ (value calculated)	NPHV (OEL TWA)	13 mg/m³	
Spain - Occupational Exposure Limits           VLA-ED (OEL TWA)         13 mg/m³           2 ppm           VLA-EC (OEL STEL)         19 mg/m³           3 ppm           WEL TWA (OEL TWA)         13 mg/m³           2 ppm           WEL STEL (OEL STEL)         19 mg/m³           3 ppm           Norway - Occupational Exposure Limits           Grenseverdi (OEL TWA)         12 mg/m³           2 ppm           Korttidsverdi (OEL STEL)         18 mg/m³ (value calculated)		2 ppm	
VLA-ED (OEL TWA)         13 mg/m³           2 ppm           VLA-EC (OEL STEL)         19 mg/m³           3 ppm           United Kingdom - Occupational Exposure Limits           WEL TWA (OEL TWA)         13 mg/m³           2 ppm           WEL STEL (OEL STEL)         19 mg/m³           3 ppm           Norway - Occupational Exposure Limits           Grenseverdi (OEL TWA)         12 mg/m³           2 ppm           Korttidsverdi (OEL STEL)         18 mg/m³ (value calculated)	NPHV (OEL C)	26 mg/m³	
VLA-EC (OEL STEL)       2 ppm         VLA-EC (OEL STEL)       19 mg/m³         3 ppm         WEL TWA (OEL TWA)       13 mg/m³         2 ppm         WEL STEL (OEL STEL)       19 mg/m³         3 ppm         Norway - Occupational Exposure Limits         Grenseverdi (OEL TWA)       12 mg/m³         2 ppm         Korttidsverdi (OEL STEL)       18 mg/m³ (value calculated)	Spain - Occupational Exposure Limits		
VLA-EC (OEL STEL)       19 mg/m³         United Kingdom - Occupational Exposure Limits         WEL TWA (OEL TWA)       13 mg/m³         2 ppm         WEL STEL (OEL STEL)       19 mg/m³         3 ppm         Norway - Occupational Exposure Limits         Grenseverdi (OEL TWA)       12 mg/m³         2 ppm         Korttidsverdi (OEL STEL)       18 mg/m³ (value calculated)	VLA-ED (OEL TWA)	13 mg/m³	
United Kingdom - Occupational Exposure Limits  WEL TWA (OEL TWA)  13 mg/m³ 2 ppm  WEL STEL (OEL STEL) 19 mg/m³ 3 ppm  Norway - Occupational Exposure Limits  Grenseverdi (OEL TWA) 12 mg/m³ 2 ppm  Korttidsverdi (OEL STEL) 18 mg/m³ (value calculated)		2 ppm	
WEL TWA (OEL TWA)  WEL STEL (OEL STEL)  19 mg/m³  3 ppm  Norway - Occupational Exposure Limits  Grenseverdi (OEL TWA)  12 mg/m³  2 ppm  18 mg/m³  19 mg/m³  19 mg/m³  10 mg/m³	VLA-EC (OEL STEL)	19 mg/m³	
WEL TWA (OEL TWA)       13 mg/m³         2 ppm         WEL STEL (OEL STEL)       19 mg/m³         3 ppm         Norway - Occupational Exposure Limits         Grenseverdi (OEL TWA)       12 mg/m³         2 ppm         Korttidsverdi (OEL STEL)       18 mg/m³ (value calculated)		3 ppm	
WEL STEL (OEL STEL)  19 mg/m³ 3 ppm  Norway - Occupational Exposure Limits  Grenseverdi (OEL TWA)  12 mg/m³ 2 ppm  Korttidsverdi (OEL STEL)  18 mg/m³ (value calculated)	United Kingdom - Occupational Exposure Limits		
WEL STEL (OEL STEL)  19 mg/m³ 3 ppm  Norway - Occupational Exposure Limits  Grenseverdi (OEL TWA)  12 mg/m³ 2 ppm  Korttidsverdi (OEL STEL)  18 mg/m³ (value calculated)	WEL TWA (OEL TWA)	13 mg/m³	
Norway - Occupational Exposure Limits  Grenseverdi (OEL TWA)  12 mg/m³ 2 ppm  Korttidsverdi (OEL STEL)  18 mg/m³ (value calculated)		2 ppm	
Norway - Occupational Exposure Limits  Grenseverdi (OEL TWA)  12 mg/m³ 2 ppm  Korttidsverdi (OEL STEL)  18 mg/m³ (value calculated)	WEL STEL (OEL STEL)	19 mg/m³	
Grenseverdi (OEL TWA)  12 mg/m³  2 ppm  Korttidsverdi (OEL STEL)  18 mg/m³ (value calculated)		3 ppm	
2 ppm  Korttidsverdi (OEL STEL)  18 mg/m³ (value calculated)	Norway - Occupational Exposure Limits		
Korttidsverdi (OEL STEL)  18 mg/m³ (value calculated)	Grenseverdi (OEL TWA)	12 mg/m³	
		2 ppm	
4 ppm (value calculated)	Korttidsverdi (OEL STEL)	18 mg/m³ (value calculated)	
		4 ppm (value calculated)	

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Camphor (76-22-2)		
Switzerland - Occupational Exposure Limits		
MAK (OEL TWA)	13 mg/m³ (aerosol, vapour)	
	2 ppm (aerosol, vapour)	
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL TWA	2 ppm (synthetic)	
ACGIH OEL STEL	3 ppm (synthetic)	
ACGIH chemical category	Not Classifiable as a Human Carcinogen synthetic	
citral (5392-40-5)		
Belgium - Occupational Exposure Limits		
OEL TWA	32 mg/m³ (vapor and aerosol)	
	5 ppm (vapor and aerosol)	
OEL chemical category	Skin	
Ireland - Occupational Exposure Limits		
OEL TWA	5 ppm	
OEL STEL	15 ppm (calculated)	
Poland - Occupational Exposure Limits		
NDS (OEL TWA)	27 mg/m³	
NDSCh (OEL STEL)	54 mg/m³	
Portugal - Occupational Exposure Limits		
OEL TWA	5 ppm (inhalable fraction; vapor)	
OEL chemical category	Sensitizer dermal, A4 - Not Classifiable as a Human Carcinogen, skin - potential for cutaneous exposure	
Spain - Occupational Exposure Limits		
VLA-ED (OEL TWA)	5 ppm (inhalable fraction and vapor)	
OEL chemical category	Sensitizer, skin - potential for cutaneous absorption	
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL TWA	5 ppm (inhalable fraction and vapor)	
ACGIH chemical category	Not Classifiable as a Human Carcinogen, Skin - potential significant contribution to overall exposure by the cutaneous route, dermal sensitizer	
Alcohol C-10 (112-30-1)		
Bulgaria - Occupational Exposure Limits		
OEL TWA	10 mg/m³	
Germany - Occupational Exposure Limits (TRGS 900)		
AGW (OEL TWA)	66 mg/m³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)	
	10 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)	
Latvia - Occupational Exposure Limits		
OEL TWA	10 mg/m³	

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Alcohol C-10 (112-30-1)		
Lithuania - Occupational Exposure Limits		
IPRV (OEL TWA)	10 mg/m³	
Romania - Occupational Exposure Limits		
OEL TWA	100 mg/m³	
	15 ppm	
OEL STEL	200 mg/m³	
	30 ppm	
Switzerland - Occupational Exposure Limits		
MAK (OEL TWA)	66 mg/m³ (aerosol, vapour)	
	10 ppm (aerosol, vapour)	
KZGW (OEL STEL)	66 mg/m³ (aerosol, vapour)	
	10 ppm (aerosol, vapour)	
Aldehyde C-6 (66-25-1)		
Finland - Occupational Exposure Limits		
HTP (OEL STEL)	42 mg/m³	
	10 ppm	
Poland - Occupational Exposure Limits		
NDS (OEL TWA)	40 mg/m³	
NDSCh (OEL STEL)	80 mg/m³	
Caproic acid (142-62-1)		
Bulgaria - Occupational Exposure Limits		
OEL TWA	5 mg/m³	
Latvia - Occupational Exposure Limits		
OEL TWA	5 mg/m³	
Lithuania - Occupational Exposure Limits		
IPRV (OEL TWA)	5 mg/m³	
butyric acid (107-92-6)		
Bulgaria - Occupational Exposure Limits		
OEL TWA	10 mg/m³	
Latvia - Occupational Exposure Limits		
OEL TWA	10 mg/m³	
Lithuania - Occupational Exposure Limits		
IPRV (OEL TWA)	10 mg/m³	
Romania - Occupational Exposure Limits		
OEL TWA	15 mg/m³	
	4 ppm	
OEL STEL	30 mg/m³	
	8 ppm	

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

# 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### 8.2.2. Personal protection equipment

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### Personal protective equipment symbol(s):







## 8.2.2.1. Eye and face protection

#### Eye protection:

Chemical goggles or safety glasses. Safety glasses

## 8.2.2.2. Skin protection

#### Skin and body protection:

Wear suitable protective clothing

#### Hand protection:

Protective gloves. Wear protective gloves.

# 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Wear appropriate mask

#### 8.2.2.4. Thermal hazards

No additional information available

# 8.2.3. Environmental exposure controls

# Environmental exposure controls:

Avoid release to the environment.

### Other information:

Do not eat, drink or smoke during use.

# **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : Conforms to standard.
Odour : characteristic.

Odour threshold : Not available
Melting point : Not applicable
Freezing point : Not available

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Boiling point : Not available

Flammability : Not applicable, Combustible liquid

Lower explosion limit : Not available
Upper explosion limit : Not available
Flash point : 93 °C
Auto-ignition temperature : Not available
Decomposition temperature : Not available
pH : Not available
Viscosity, kinematic : Not available

Solubility : Not available Partition coefficient n-octanol/water (Log Kow) : Not available

Vapour pressure : 0.000670459 mm Hg (calculated value)

Vapour pressure at  $50^{\circ}$ C : Not available Density : Not available Relative density :  $\approx 1.09$  Relative vapour density at  $20^{\circ}$ C : Not available Particle characteristics : Not applicable

#### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

VOC content : 7.60303 % (calculated value)(CARB VOC) (%w/w)

### **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions. Combustible liquid. May form flammable/explosive vapour-air mixture.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Not established.

# 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

# 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

### **SECTION 11: Toxicological information**

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

Acute toxicity (oral) : Harmful if swallowed.

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

#### **Duftöl: Tulips**

ATE CLP (oral) 695.817 mg/kg bodyweight

# Safety Data Sheet

benzyl benzoate (120-51-4)		
LD50 oral rat	> 2000 mg/kg (Source: ECHA_API)	
LD50 oral	1160 mg/kg bodyweight	
LD50 dermal rabbit	4000 mg/kg (Source: NLM_CIP)	
Phenylethyl alcohol (60-12-8)		
LD50 oral rat	1609 mg/kg (Source: EPA_HPV)	
LD50 oral	1610 mg/kg	
LD50 dermal rabbit	2535 mg/kg (Source: EPA_HPV)	
LC50 Inhalation - Rat	> 4.63 mg/l/4h	
Linalool (78-70-6)		
LD50 oral	2790 mg/kg	
Verdyl acetate (5413-60-5)		
LD50 oral	3050 mg/kg bodyweight	
LD50 dermal rabbit	> 5000 mg/kg (Source: ECHA_API)	
Amyl cinnamic aldehyde (122-40-7)		
LD50 oral rat	3730 mg/kg (Source: CHEMVIEW)	
LD50 dermal rabbit	> 2000 mg/kg (Source: CHEMVIEW)	
Isocyclocitral (1335-66-6)		
LD50 oral rat	4500 mg/kg (Source: NLM_CIP)	
LD50 oral	3220 mg/kg bodyweight	
Terpineol (8000-41-7)		
LD50 oral rat	2900 mg/kg (Source: IUCLID)	
LD50 oral	4300 mg/kg bodyweight	
LD50 dermal rabbit	> 3000 mg/kg (Source: IUCLID)	
Elemi oil (8023-89-0)		
LD50 oral rat	3370 mg/kg (Source: NLM_CIP)	
LD50 oral	3370 mg/kg	
Eugenol (97-53-0)		
LD50 oral rat	1930 mg/kg (Source: NZ_CCID)	
LD50 oral	2500 mg/kg bodyweight	
LC50 Inhalation - Rat	> 2.58 mg/l/4h	
3-(2,2-dimethyl-3-hydroxypropyl)toluene; (alt.): 2,2-dimethyl-3-(3-methylphenyl)propanol (103694-68-4)		
LD50 oral	3440 mg/kg bodyweight	
LD50 dermal rabbit	> 5 ml/kg (Source: ECHA_API)	
Carbitol (111-90-0)		
LD50 oral rat	10502 mg/kg (Source: OECD_SIDS)	
LD50 dermal rabbit	9143 mg/kg (Source: OECD_SIDS)	
LC50 Inhalation - Rat	> 5240 mg/m³ (Exposure time: 4 h Source: NLM_CIP)	

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Hydroxy (107-75-5)	
LD50 oral rat	> 6400 mg/kg (Source: ECHA)
LD50 dermal rabbit	> 2000 mg/kg (Source: ECHA_API)
Amyl salicylate (2050-08-0)	
LD50 oral rat	4100 mg/kg (Source: NZ_CCID)
LD50 oral	2000 mg/kg bodyweight
LD50 dermal rabbit	> 5000 mg/kg (Source: CHEMVIEW)
Cinnamic alcohol (104-54-1)	
LD50 oral	2000 mg/kg bodyweight
LD50 dermal rabbit	> 5000 mg/kg (Source: ECHA_API)
Camphor (76-22-2)	
LD50 oral	1500 mg/kg
LD50 dermal rat	> 2000 mg/kg (Source: ECHA_API)
Citronellol Pure (106-22-9)	
LD50 oral rat	3450 mg/kg (Source: NLM_CIP)
LD50 oral	3450 mg/kg bodyweight
LD50 dermal rabbit	2650 mg/kg (Source: EPA_HPV)
LD50 dermal	2650 mg/kg bodyweight
citral (5392-40-5)	
LD50 oral rat	4960 mg/kg (Source: NLM_CIP)
LD50 dermal rabbit	2250 mg/kg (Source: NLM_CIP)
Triplal (Vertocitral) (68039-49-6)	
LD50 oral	2330 mg/kg
Alcohol C-10 (112-30-1)	
LD50 oral rat	4720 mg/kg (Source: NZ_CCID)
LD50 dermal rat	> 5000 mg/kg (Source: ECHA_API)
LC50 Inhalation - Rat	> 71 mg/l (Exposure time: 1 h Source: ECHA_API)
Aldehyde C-6 (66-25-1)	
LD50 oral rat	4890 mg/kg (Source: NLM_CIP)
LD50 dermal rabbit	> 8100 mg/kg (Source: ECHA_API)
Caproic acid (142-62-1)	
LD50 oral rat	3 g/kg (Source: NLM_HSDB)
LD50 oral	4000 mg/kg bodyweight
LD50 dermal rabbit	630 mg/kg (Source: NLM_HSDB)
butyric acid (107-92-6)	
LD50 oral rat	2 g/kg (Source: NLM_CIP)
LD50 oral	1630 mg/kg bodyweight
LD50 dermal rabbit	530 mg/kg (Source: NLM_HSDB)

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Causes serious eye irritation. Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified Carcinogenicity : Not classified

**Eugenol (97-53-0)** 

IARC group 3 - Not classifiable

Reproductive toxicity : Not classified STOT-single exposure Not classified

**Camphor (76-22-2)** 

STOT-single exposure May cause damage to organs.

STOT-repeated exposure : Not classified Aspiration hazard Not classified

benzyl benzoate (120-51-4)

7.456 mm<sup>2</sup>/s Viscosity, kinematic

# 11.2. Information on other hazards

### 11.2.1. Endocrine disrupting properties

No additional information available

#### 11.2.2. Other information

Potential adverse human health effects and

: Based on available data, the classification criteria are not met, Harmful if swallowed.

symptoms

# **SECTION 12: Ecological information**

# 12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

Hazardous to the aquatic environment, short-term : Very toxic to aquatic life.

Hazardous to the aquatic environment, long-term

: Toxic to aquatic life with long lasting effects.

(chronic)		
benzyl benzoate (120-51-4)		
LC50 - Fish [1]	2.32 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static] Source: ECHA)	
NOEC (chronic)	0.168 mg/l	
Phenylethyl alcohol (60-12-8)		
EC50 - Crustacea [1]	287.17 mg/l (Exposure time: 48 h - Species: Daphnia magna)	
EC50 72h - Algae [1]	490 mg/l (Species: Desmodesmus subspicatus)	
Linalool (78-70-6)		
EC50 96h - Algae [1]	88.3 mg/l (Species: Desmodesmus subspicatus)	
Eugenol (97-53-0)		
LC50 - Fish [1]	13 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static] Source: ECHA)	
Carbitol (111-90-0)		
LC50 - Fish [1]	10000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static] Source: EPA)	
LC50 - Fish [2]	19100 – 23900 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through] Source: EPA)	

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ECSO - Crustacea [1] 3940 – 4670 mg/l (Exposure time: 48 h - Species: Daphnia magna)  citrat (5392-40-5)  ECSO - Crustacea [1] 7 mg/l (Exposure time: 48 h - Species: Daphnia magna)  ECSO 96h - Algae [1] 18 mg/l (Species: Desmodesmus subspicatus)  ECSO 96h - Algae [1] 19 mg/l (Species: Desmodesmus subspicatus)  Alcohol C-10 (112-30-1)  LCSO - Fish [1] 2.2 – 2.5 mg/l (Exposure time: 96 h - Species: Pimephales promeias (flow-through) Source: EPA)  LCSO - Fish [2] 412 – 6.2 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus (static) Source: EPA)  LCSO - Fish [2] 3 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus (static) Source: EPA)  Aldehyde C-6 (66-25-1)  LCSO - Fish [1] 12 – 16.5 mg/l (Exposure time: 96 h - Species: Daphnia magna)  Aldehyde C-6 (66-25-1)  LCSO - Fish [1] 12 – 16.5 mg/l (Exposure time: 96 h - Species: Pimephales promeias (flow-through) Source: EPA)  Caprolc acid (142-62-1)  LCSO - Fish [1] 306 – 334 mg/l (Exposure time: 96 h - Species: Pimephales promeias (flow-through) Source: EPA)  LCSO - Fish [2] 88 mg/l (Exposure time: 96 h - Species: Pimephales promeias (flow-through) Source: EPA)  butyric acid (107-82-6)  ECSO 72h - Algae [1] 45.7 mg/l (Species: Desmodesmus subspicatus)  12.2 Persistence and degradability  Not established.  Denzyl benzoate (120-51-4)  Persistence and degradability Nay cause long-term adverse effects in the environment.  Phenylethyl alcohol (60-12-8)  Persistence and degradability Rapidly degradable  Linatool (78-70-6)  Persistence and degradability Rapidly degradable  Amyl cinnamic aldohyde (122-40-7)  Persistence and degradability Rapidly degradable  Terprised (800-04-17)  Persistence and degradability Rapidly degradable  Terprised (800-04-17)  Persistence and degradability Rapidly degradable	Carbitol (111-90-0)	
EC50 - Crustacea [1] 7 mg/l (Exposure time: 48 h - Species: Daphnia magna)  EC50 72h - Algae [1] 16 mg/l (Species: Desmodesmus subspicatus)  EC50 80h - Algae [1] 19 mg/l (Species: Desmodesmus subspicatus)  Alcohol C-10 (112-30-1)  LC30 - Fish [1] 22 - 2.5 mg/l (Exposure time: 96 h - Species: Pimephales promelas (flow-throughl) Source: EPA)  LC50 - Fish [2] 4.12 - 6.2 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus (static) Source: EPA)  EC50 - Crustacea [1] 3 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus (static) Source: EPA)  Aldohyde C-6 (66-25-1)  LC50 - Fish [1] 12 - 16.5 mg/l (Exposure time: 96 h - Species: Pimephales promelas (flow-throughl) Source: EPA)  Caprolic acid (142-62-1)  LC50 - Fish [1] 306 - 334 mg/l (Exposure time: 96 h - Species: Pimephales promelas (flow-throughl) Source: EPA)  Caprolic acid (142-62-1)  LC50 - Fish [2] 88 mg/l (Exposure time: 96 h - Species: Pimephales promelas (flow-throughl) Source: EPA)  butyric acid (107-92-6)  EC50 72h - Algae [1] 46.7 mg/l (Species: Desmodesmus subspicatus)  12.2 Persistence and degradability  Not established.  Denzyl benzoate (120-51-4)  Persistence and degradability May cause long-term adverse effects in the environment.  Phenylethyl alcohol (60-12-8)  Persistence and degradability Rapidly degradable  Linaloci (78-70-6)  Persistence and degradability Rapidly degradable  Vordyl acotate (5413-60-5)  Persistence and degradability Rapidly degradable  Amyl cinnamic aldehyde (122-40-7)  Persistence and degradability Rapidly degradable  Isocyclocitral (1335-66-6)  Persistence and degradability Rapidly degradable  Terpineol (8000-41-7)	EC50 - Crustacea [1]	3940 – 4670 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h - Algae [1] 16 mg/l (Species: Desmodesmus subspicatus)  EC50 96h - Algae [1] 19 mg/l (Species: Desmodesmus subspicatus)  Alcohol C-10 (112-30-1)  LC50 - Fish [1] 2.2 - 2.5 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA)  LC50 - Fish [2] 4.12 - 6.2 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static] Source: EPA)  LC50 - Fish [2] 4.12 - 6.2 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static] Source: EPA)  Aldehyde C-6 (66-25-1)  LC50 - Fish [1] 12 - 16.5 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA)  Caprole acid (142-62-1)  LC50 - Fish [1] 306 - 334 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA)  LC50 - Fish [2] 88 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA)  butyric acid (107-92-6)  EC50 72h - Algae [1] 46.7 mg/l (Species: Desmodesmus subspicatus)  12.2 Persistence and degradability  Not established.  benzyl benzoate (120-51-4)  Persistence and degradability May cause long-term adverse effects in the environment.  Phenylethyl alcohol (60-12-8)  Persistence and degradability Rapidly degradable  Linatool (78-70-6)  Persistence and degradability Rapidly degradable  Linatool (78-70-6)  Persistence and degradability Rapidly degradable  Amyl cinnamic aldehyde (122-40-7)  Persistence and degradability Rapidly degradable  Linatool (3000-41-7)	citral (5392-40-5)	
EC50 96h - Algae [1]	EC50 - Crustacea [1]	7 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Alcohol C-10 (112-30-1)  LC50 - Fish [1]	EC50 72h - Algae [1]	16 mg/l (Species: Desmodesmus subspicatus)
LC50 - Fish [1]  2.2 - 2.5 mg/l (Exposure time: 96 h - Species: Pimephales prometes [flow-through] Source: EPA)  LC50 - Fish [2]  4.12 - 6.2 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static] Source: EPA)  EC50 - Crustacea [1]  3 mg/l (Exposure time: 48 h - Species: Daphnia magna)  Aldehyde C-6 (66-25-1)  LC50 - Fish [1]  12 - 16.5 mg/l (Exposure time: 96 h - Species: Pimephales prometas [flow-through] Source: EPA)  Caproic acid (142-62-1)  LC50 - Fish [1]  306 - 334 mg/l (Exposure time: 96 h - Species: Pimephales prometas [flow-through] Source: EPA)  LC50 - Fish [2]  88 mg/l (Exposure time: 96 h - Species: Pimephales prometas [flow-through] Source: EPA)  butyric acid (107-92-6)  EC50 72h - Algae [1]  46.7 mg/l (Species: Desmodesmus subspicatus)  12.2. Persistence and degradability  Duft8! Tulips  Persistence and degradability  Not established.  benzyl benzoate (120-51-4)  Persistence and degradability  Rapidly degradable  Inalial (78-70-6)  Persistence and degradability  Rapidly degradable  Verdyl acetate (5413-60-5)  Persistence and degradability  Rapidly degradable  Amyl cinnamic aldehyde (122-40-7)  Persistence and degradability  Rapidly degradable  Socyclocitral (1335-66-6)  Persistence and degradability  Rapidly degradable  Terpincol (8000-41-7)	EC50 96h - Algae [1]	19 mg/l (Species: Desmodesmus subspicatus)
Source: EPA	Alcohol C-10 (112-30-1)	
EPA    C50 - Crustacea [1]   3 mg/l (Exposure time: 48 h - Species: Daphnia magna)   Aldehyde C-6 (66-25-1)     LC50 - Fish [1]   12 - 16.5 mg/l (Exposure time: 96 h - Species: Pimephales prometas [flow-through]     Source: EPA    Caproic acid (142-62-1)     LC50 - Fish [1]   306 - 334 mg/l (Exposure time: 96 h - Species: Pimephales prometas [flow-through]     Source: EPA    LC50 - Fish [2]   88 mg/l (Exposure time: 96 h - Species: Pimephales prometas [flow-through]     Source: EPA    butyric acid (107-92-6)     EC50 72h - Aigae [1]   46.7 mg/l (Species: Desmodesmus subspicatus)   12.2. Persistence and degradability     Duft6l: Tullips     Persistence and degradability   Not established.     benzyl benzoate (120-51-4)     Persistence and degradability   May cause long-term adverse effects in the environment.     Phenylethyl alcohol (60-12-8)     Persistence and degradability   Rapidly degradable     Linatool (78-70-6)     Persistence and degradability   Rapidly degradable     Amyl cinnamic aldehyde (122-40-7)     Persistence and degradability   Rapidly degradable     Linatonamic aldehyde (122-40-7)     Persistence and degradability   Rapidly degradable     Linatonamic aldehyde (123-66-6)     Persistence and degradability   Rapidly degradable     Linatonamic aldehyde (122-40-7)     Persistence and degradability   Rapidly degradable     Linatonamic aldehyde (123-66-6)     Persistence and degradability   Rapidly degradable     Linatonamic aldehyde (123-66-6)     Persistence and degradability   Rapidly degradable     Linatonamic aldehyde (123-66-6)     Less the control of the control	LC50 - Fish [1]	
Aldehyde C-6 (66-25-1)  LC50 - Fish [1]   12 - 16.5 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA)  Caproic acid (142-62-1)  LC50 - Fish [1]   306 - 334 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA)  LC50 - Fish [2]   88 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA)  butyric acid (107-92-6)  EC50 72h - Algae [1]   46.7 mg/l (Species: Desmodesmus subspicatus)  12.2. Persistence and degradability  Dufföl: Tulips  Persistence and degradability   Not established.  benzyl benzoate (120-51-4)  Persistence and degradability   May cause long-term adverse effects in the environment.  Phenylethyl alcohol (60-12-8)  Persistence and degradability   Rapidly degradable  Linalool (78-70-6)  Persistence and degradability   Rapidly degradable  Verdyl acetate (5413-60-5)  Persistence and degradability   Rapidly degradable  Amyl cinnamic aldehyde (122-40-7)  Persistence and degradability   Rapidly degradable  Linalool (78-70-6)  Persistence and degradability   Rapidly degradable  Amyl cinnamic aldehyde (122-40-7)  Persistence and degradability   Rapidly degradable  Linalool (8000-41-7)	LC50 - Fish [2]	
LC50 - Fish [1]	EC50 - Crustacea [1]	3 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Source: EPA)	Aldehyde C-6 (66-25-1)	
LC50 - Fish [1] 306 – 334 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA)  LC50 - Fish [2] 88 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA)  butyric acid (107-92-6)  EC50 72h - Algae [1] 46.7 mg/l (Species: Desmodesmus subspicatus)  12.2. Persistence and degradability  Dufföl: Tulips  Persistence and degradability Not established.  benzyl benzoate (120-51-4)  Persistence and degradability May cause long-term adverse effects in the environment.  Phenylethyl alcohol (60-12-8)  Persistence and degradability Rapidly degradable  Linalool (78-70-6)  Persistence and degradability Rapidly degradable  Verdyl acetate (5413-60-5)  Persistence and degradability Rapidly degradable  Amyl cinnamic aldehyde (122-40-7)  Persistence and degradability Rapidly degradable  Isocyclocitral (1335-66-6)  Persistence and degradability Rapidly degradable  Terpineol (8000-41-7)	LC50 - Fish [1]	
Source: EPA)  LC50 - Fish [2] 88 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA)  butyric acid (107-92-6)  EC50 72h - Algae [1] 46.7 mg/l (Species: Desmodesmus subspicatus)  12.2. Persistence and degradability  Duftôl: Tulips  Persistence and degradability Not established.  benzyl benzoate (120-51-4)  Persistence and degradability May cause long-term adverse effects in the environment.  Phenylethyl alcohol (60-12-8)  Persistence and degradability Rapidly degradable  Linalool (78-70-6)  Persistence and degradability Rapidly degradable  Verdyl acetate (5413-60-5)  Persistence and degradability Rapidly degradable  Amyl cinnamic aldehyde (122-40-7)  Persistence and degradability Rapidly degradable  Isocyclocitral (1335-66-6)  Persistence and degradability Rapidly degradable  Terpineol (8000-41-7)	Caproic acid (142-62-1)	
butyric acid (107-92-6)  EC50 72h - Algae [1] 46.7 mg/l (Species: Desmodesmus subspicatus)  12.2. Persistence and degradability  Duftôl: Tulips  Persistence and degradability Not established.  benzyl benzoate (120-51-4)  Persistence and degradability May cause long-term adverse effects in the environment.  Phenylethyl alcohol (60-12-8)  Persistence and degradability Rapidly degradable  Linalool (78-70-6)  Persistence and degradability Rapidly degradable  Verdyl acetate (5413-60-5)  Persistence and degradability Rapidly degradable  Amyl cinnamic aldehyde (122-40-7)  Persistence and degradability Rapidly degradable  Isocyclocitral (1335-66-6)  Persistence and degradability Rapidly degradable  Terpineol (8000-41-7)	LC50 - Fish [1]	
### 146.7 mg/l (Species: Desmodesmus subspicatus)  12.2. Persistence and degradability  Duftöl: Tulips  Persistence and degradability   Not established.  benzyl benzoate (120-51-4)  Persistence and degradability   May cause long-term adverse effects in the environment.  Phenylethyl alcohol (60-12-8)  Persistence and degradability   Rapidly degradable  Linalool (78-70-6)  Persistence and degradability   Rapidly degradable  Verdyl acetate (5413-60-5)  Persistence and degradability   Rapidly degradable  Amyl cinnamic aldehyde (122-40-7)  Persistence and degradability   Rapidly degradable  Isocyclocitral (1335-66-6)  Persistence and degradability   Rapidly degradable  Isocyclocitral (1335-66-6)  Persistence and degradability   Rapidly degradable  Terpineol (8000-41-7)	LC50 - Fish [2]	88 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA)
Duftöl: Tulips Persistence and degradability Not established. benzyl benzoate (120-51-4) Persistence and degradability May cause long-term adverse effects in the environment.  Phenylethyl alcohol (60-12-8) Persistence and degradability Rapidly degradable  Linalool (78-70-6) Persistence and degradability Rapidly degradable  Verdyl acetate (5413-60-5) Persistence and degradability Rapidly degradable  Amyl cinnamic aldehyde (122-40-7) Persistence and degradability Rapidly degradable  Isocyclocitral (1335-66-6) Persistence and degradability Rapidly degradable  Terpineol (8000-41-7)	butyric acid (107-92-6)	
Duftöl: Tulips Persistence and degradability Not established.  benzyl benzoate (120-51-4) Persistence and degradability May cause long-term adverse effects in the environment.  Phenylethyl alcohol (60-12-8) Persistence and degradability Rapidly degradable  Linalool (78-70-6) Persistence and degradability Rapidly degradable  Verdyl acetate (5413-60-5) Persistence and degradability Rapidly degradable  Amyl cinnamic aldehyde (122-40-7) Persistence and degradability Rapidly degradable  Isocyclocitral (1335-66-6) Persistence and degradability Rapidly degradable  Terpineol (8000-41-7)	EC50 72h - Algae [1]	46.7 mg/l (Species: Desmodesmus subspicatus)
Persistence and degradability    Not established.	12.2. Persistence and degradability	
benzyl benzoate (120-51-4)  Persistence and degradability May cause long-term adverse effects in the environment.  Phenylethyl alcohol (60-12-8)  Persistence and degradability Rapidly degradable  Linalool (78-70-6)  Persistence and degradability Rapidly degradable  Verdyl acetate (5413-60-5)  Persistence and degradability Rapidly degradable  Amyl cinnamic aldehyde (122-40-7)  Persistence and degradability Rapidly degradable  Isocyclocitral (1335-66-6)  Persistence and degradability Rapidly degradable  Terpineol (8000-41-7)	Duftöl: Tulips	
Persistence and degradability  May cause long-term adverse effects in the environment.  Phenylethyl alcohol (60-12-8)  Persistence and degradability  Rapidly degradable  Linalool (78-70-6)  Persistence and degradability  Rapidly degradable  Verdyl acetate (5413-60-5)  Persistence and degradability  Rapidly degradable  Amyl cinnamic aldehyde (122-40-7)  Persistence and degradability  Rapidly degradable  Isocyclocitral (1335-66-6)  Persistence and degradability  Rapidly degradable  Terpineol (8000-41-7)	Persistence and degradability	Not established.
Phenylethyl alcohol (60-12-8)  Persistence and degradability Rapidly degradable  Linalool (78-70-6)  Persistence and degradability Rapidly degradable  Verdyl acetate (5413-60-5)  Persistence and degradability Rapidly degradable  Amyl cinnamic aldehyde (122-40-7)  Persistence and degradability Rapidly degradable  Isocyclocitral (1335-66-6)  Persistence and degradability Rapidly degradable  Terpineol (8000-41-7)	benzyl benzoate (120-51-4)	
Persistence and degradability  Linalool (78-70-6)  Persistence and degradability  Rapidly degradable  Verdyl acetate (5413-60-5)  Persistence and degradability  Rapidly degradable  Amyl cinnamic aldehyde (122-40-7)  Persistence and degradability  Rapidly degradable  Isocyclocitral (1335-66-6)  Persistence and degradability  Rapidly degradable  Terpineol (8000-41-7)	Persistence and degradability	May cause long-term adverse effects in the environment.
Linalool (78-70-6)  Persistence and degradability Rapidly degradable  Verdyl acetate (5413-60-5)  Persistence and degradability Rapidly degradable  Amyl cinnamic aldehyde (122-40-7)  Persistence and degradability Rapidly degradable  Isocyclocitral (1335-66-6)  Persistence and degradability Rapidly degradable  Terpineol (8000-41-7)	Phenylethyl alcohol (60-12-8)	
Persistence and degradability  Rapidly degradable  Verdyl acetate (5413-60-5)  Persistence and degradability  Rapidly degradable  Amyl cinnamic aldehyde (122-40-7)  Persistence and degradability  Rapidly degradable  Isocyclocitral (1335-66-6)  Persistence and degradability  Rapidly degradable  Terpineol (8000-41-7)	Persistence and degradability	Rapidly degradable
Verdyl acetate (5413-60-5)  Persistence and degradability  Rapidly degradable  Amyl cinnamic aldehyde (122-40-7)  Persistence and degradability  Rapidly degradable  Isocyclocitral (1335-66-6)  Persistence and degradability  Rapidly degradable  Terpineol (8000-41-7)	Linalool (78-70-6)	
Persistence and degradability  Amyl cinnamic aldehyde (122-40-7)  Persistence and degradability  Rapidly degradable  Isocyclocitral (1335-66-6)  Persistence and degradability  Rapidly degradable  Terpineol (8000-41-7)	Persistence and degradability	Rapidly degradable
Amyl cinnamic aldehyde (122-40-7)  Persistence and degradability Rapidly degradable  Isocyclocitral (1335-66-6)  Persistence and degradability Rapidly degradable  Terpineol (8000-41-7)	Verdyl acetate (5413-60-5)	
Persistence and degradability  Rapidly degradable  Isocyclocitral (1335-66-6)  Persistence and degradability  Rapidly degradable  Terpineol (8000-41-7)	Persistence and degradability	Rapidly degradable
Isocyclocitral (1335-66-6)  Persistence and degradability  Rapidly degradable  Terpineol (8000-41-7)	Amyl cinnamic aldehyde (122-40-7)	
Persistence and degradability Rapidly degradable  Terpineol (8000-41-7)	Persistence and degradability	Rapidly degradable
Terpineol (8000-41-7)	Isocyclocitral (1335-66-6)	
	Persistence and degradability	Rapidly degradable
Persistence and degradability Rapidly degradable	Terpineol (8000-41-7)	
	Persistence and degradability	Rapidly degradable

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Elemi oil (8023-89-0)	
Persistence and degradability	Rapidly degradable
Eugenol (97-53-0)	
Persistence and degradability	Rapidly degradable
3-(2,2-dimethyl-3-hydroxypropyl)toluene; (alt.	): 2,2-dimethyl-3-(3-methylphenyl)propanol (103694-68-4)
Persistence and degradability	Rapidly degradable
Carbitol (111-90-0)	
Persistence and degradability	Rapidly degradable
Hydroxy (107-75-5)	
Persistence and degradability	Rapidly degradable
Amyl salicylate (2050-08-0)	
Persistence and degradability	Rapidly degradable
Cinnamic alcohol (104-54-1)	
Persistence and degradability	Rapidly degradable
Camphor (76-22-2)	
Persistence and degradability	Rapidly degradable
Citronellol Pure (106-22-9)	
Persistence and degradability	Rapidly degradable
citral (5392-40-5)	
Persistence and degradability	Rapidly degradable
Adoxal (141-13-9)	
Persistence and degradability	Rapidly degradable
Triplal (Vertocitral) (68039-49-6)	
Persistence and degradability	Rapidly degradable
Alcohol C-10 (112-30-1)	
Persistence and degradability	Rapidly degradable
Aldehyde C-6 (66-25-1)	
Persistence and degradability	Rapidly degradable
Caproic acid (142-62-1)	
Persistence and degradability	Rapidly degradable
butyric acid (107-92-6)	
Persistence and degradability	Rapidly degradable
12.3. Bioaccumulative potential	
Duftöl: Tulips	
Bioaccumulative potential	Not established.

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benzyl benzoate (120-51-4)	
Partition coefficient n-octanol/water (Log Pow)	3.97 (at 25 °C)
Bioaccumulative potential	Not established.
Phenylethyl alcohol (60-12-8)	
Partition coefficient n-octanol/water (Log Pow)	1.36 (at 20 °C (at pH 7)
Verdyl acetate (5413-60-5)	
Partition coefficient n-octanol/water (Log Pow)	4.2 (at 30 °C (at pH 5.92)
Amyl cinnamic aldehyde (122-40-7)	
Partition coefficient n-octanol/water (Log Pow)	2.498 (at 25 °C (at pH 6.2)
Eugenol (97-53-0)	
Partition coefficient n-octanol/water (Log Pow)	1.83 (at 30 °C (at pH 5.5)
3-(2,2-dimethyl-3-hydroxypropyl)toluene; (alt.	): 2,2-dimethyl-3-(3-methylphenyl)propanol (103694-68-4)
Partition coefficient n-octanol/water (Log Pow)	3.07 (at 20 °C)
Carbitol (111-90-0)	
Partition coefficient n-octanol/water (Log Pow)	-0.8
Hydroxy (107-75-5)	
Partition coefficient n-octanol/water (Log Pow)	1.68 (at 25 °C)
Amyl salicylate (2050-08-0)	
BCF - Fish [1]	(1170 dimensionless (whole body w.w.)
Partition coefficient n-octanol/water (Log Pow)	4.5 (at 30 °C)
Cinnamic alcohol (104-54-1)	
Partition coefficient n-octanol/water (Log Pow)	1.636 (at 27 °C (at pH 3.52)
Camphor (76-22-2)	
Partition coefficient n-octanol/water (Log Pow)	2.414 (at 25 °C)
Citronellol Pure (106-22-9)	
Partition coefficient n-octanol/water (Log Pow)	3.41 (at 25 °C)
citral (5392-40-5)	
Partition coefficient n-octanol/water (Log Pow)	2.76 (at 25 °C)
Adoxal (141-13-9)	
Partition coefficient n-octanol/water (Log Pow)	6.2 (at 35 °C (at pH 7)
Alcohol C-10 (112-30-1)	
Partition coefficient n-octanol/water (Log Pow)	4.5 (at 25 °C (at pH 6)
Aldehyde C-6 (66-25-1)	
Partition coefficient n-octanol/water (Log Pow)	2.3 (at 25 °C (at pH 5)
Caproic acid (142-62-1)	
Partition coefficient n-octanol/water (Log Pow)	1.88

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

butyric acid (107-92-6)	
Partition coefficient n-octanol/water (Log Pow)	1.1 (at 25 °C (at pH 3)

# 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

#### 12.7. Other adverse effects

Additional information : Avoid release to the environment.

# **SECTION 13: Disposal considerations**

# 13.1. Waste treatment methods

Waste treatment methods

Product/Packaging disposal recommendations

Ecological information HP Code

- : Dispose of contents/container in accordance with licensed collector's sorting instructions.
- : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container in accordance with local/national laws and regulations.
- : Avoid release to the environment.
- : HP6 "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.

HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.

HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

# **SECTION 14: Transport information**

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID n	14.1. UN number or ID number			
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
14.2. UN proper shippin	g name			
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BENZYL BENZOATE)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BENZYL BENZOATE)	Environmentally hazardous substance, liquid, n.o.s. (BENZYL BENZOATE)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BENZYL BENZOATE)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BENZYL BENZOATE)
Transport document descr	iption			
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BENZYL BENZOATE), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BENZYL BENZOATE), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (BENZYL BENZOATE), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BENZYL BENZOATE), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BENZYL BENZOATE), 9, III
14.3. Transport hazard o	14.3. Transport hazard class(es)			
9	9	9	9	9

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ADR	IMDG	IATA	ADN	RID
**************************************	**************************************	**************************************	**************************************	**************************************
14.4. Packing group				
III	III	III	III	III
14.5. Environmental haz	14.5. Environmental hazards			
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

## 14.6. Special precautions for user

#### **Overland transport**

Classification code (ADR) : M6

Special provisions (ADR) : 274, 335, 375, 601

Limited quantities (ADR) : 5I Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC03, LP01, R001

Special packing provisions (ADR) : PP1
Mixed packing provisions (ADR) : MP19
Portable tank and bulk container instructions (ADR) : T4
Portable tank and bulk container special provisions : TP1, TP29

(ADR)

Tank code (ADR) : LGBV
Vehicle for tank carriage : AT
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12
Special provisions for carriage - Loading, unloading : CV13

and handling (ADR)

Hazard identification number (Kemler No.) : 90

Orange plates :

90 3082

Tunnel restriction code (ADR) : EAC code : •3Z

#### Transport by sea

Special provisions (IMDG) : 274, 335, 969

Limited quantities (IMDG) : 5 L Excepted quantities (IMDG) : E1 Packing instructions (IMDG) : LP01, P001 Special packing provisions (IMDG) : PP1 : IBC03 IBC packing instructions (IMDG) : T4 Tank instructions (IMDG) : TP1, TP29 Tank special provisions (IMDG) : F-A EmS-No. (Fire) S-F EmS-No. (Spillage) Stowage category (IMDG) : A

### Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y964
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 964

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PCA max net quantity (IATA) : 450L CAO packing instructions (IATA) : 964 CAO max net quantity (IATA) : 450L

Special provisions (IATA) : A97, A158, A197, A215

ERG code (IATA) : 91

**Inland waterway transport** 

Classification code (ADN) : M6

Special provisions (ADN) : 274, 335, 375, 601

Limited quantities (ADN) : 5 L

Excepted quantities (ADN) : E1

Carriage permitted (ADN) : T

Equipment required (ADN) : PP

Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : M6

Special provisions (RID) : 274, 335, 375, 601

Limited quantities (RID) : 5L Excepted quantities (RID) : E1

Packing instructions (RID) : P001, IBC03, LP01, R001

Special packing provisions (RID) : PP1
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T4
Portable tank and bulk container special provisions : TP1, TP29

(RID)

Tank codes for RID tanks (RID) : LGBV

Transport category (RID) : 3

Special provisions for carriage – Packages (RID) : W12

Special provisions for carriage - Loading, unloading : CW13, CW31

and handling (RID)

Colis express (express parcels) (RID) : CE8
Hazard identification number (RID) : 90

# 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

# **SECTION 15: Regulatory information**

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

## 15.1.1. EU-Regulations

## **REACH Annex XVII (Restriction List)**

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(a)	Elemi oil ; Aldehyde C-6	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F

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EU restriction list (	EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description	
3(b)	Duftöl: Tulips; benzyl benzoate; Phenylethyl alcohol; Linalool; Amyl cinnamic aldehyde; Isocyclocitral; Terpineol; Elemi oil; Eugenol; 3-(2,2-dimethyl-3-hydroxypropyl)toluene; (alt.): 2,2-dimethyl-3-(3-methylphenyl)propanol; Hydroxy; Amyl salicylate; Citronellol Pure; citral; Adoxal; Triplal (Vertocitral); Caproic acid; butyric acid	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	
3(c)	Duftöl: Tulips; benzyl benzoate; Verdyl acetate; Amyl cinnamic aldehyde; Isocyclocitral; Elemi oil; 3-(2,2- dimethyl-3- hydroxypropyl)toluene; (alt.): 2,2-dimethyl-3-(3- methylphenyl)propanol; Amyl salicylate; Adoxal; Triplal (Vertocitral);	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1	
40.	Alcohol C-10 Elemi oil ; Camphor ; Aldehyde C-6	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	

### **REACH Annex XIV (Authorisation List)**

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

#### **REACH Candidate List (SVHC)**

Contains no substance(s) listed on the REACH Candidate List

## **PIC Regulation (Prior Informed Consent)**

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

#### **POP Regulation (Persistent Organic Pollutants)**

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

#### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

#### Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

#### VOC Directive (2004/42)

VOC content : 7.60303 % (calculated value)(CARB VOC) (%w/w)

#### **Explosives Precursors Regulation (2019/1148)**

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

## **Drug Precursors Regulation (273/2004)**

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

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# 15.1.2. National regulations

#### Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).

Hazardous Incident Ordinance (12. BImSchV) : Is not subject to the Hazardous Incident Ordinance (12. BImSchV)

**Netherlands** 

ABM category : A(1) - highly toxic for aquatic organisms, may have longterm hazardous effects in aquatic

Terpineol, Triplal (Vertocitral) are listed

Terpineol, Triplal (Vertocitral) are listed

environment

SZW-lijst van kankerverwekkende stoffen

SZW-lijst van mutagene stoffen

SZW-lijst van reprotoxische stoffen – Borstvoeding

SZW-lijst van reprotoxische stoffen -

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen - Ontwikkeling

None of the components are listedNone of the components are listed

: None of the components are listed

**Denmark** 

Class for fire hazard : Class III-1 Store unit : 50 liter

Classification remarks : Flammable according to the Danish Ministry of Justice; Emergency management guidelines

for the storage of flammable liquids must be followed

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

Pregnant/breastfeeding women working with the product must not be in direct contact with

the product

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### **SECTION 16: Other information**

Other information : None.

Full text of H- and EUH-statements:		
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4	
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1	
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1	
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2	
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3	
Asp. Tox. 1	Aspiration hazard, Category 1	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
Flam. Liq. 3	Flammable liquids, Category 3	
Flam. Sol. 2	Flammable solids, Category 2	
H226	Flammable liquid and vapour.	
H228	Flammable solid.	
H302	Harmful if swallowed.	
H304	May be fatal if swallowed and enters airways.	
H314	Causes severe skin burns and eye damage.	

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Full text of H- and EUH-statements:		
H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	
H318	Causes serious eye damage.	
H319	Causes serious eye irritation.	
H332	Harmful if inhaled.	
H371	May cause damage to organs.	
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 Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B	
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
Skin Sens. 1	Skin sensitisation, Category 1	
Skin Sens. 1B	Skin sensitisation, category 1B	
STOT SE 2	Specific target organ toxicity – Single exposure, Category 2	

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.