

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 4/13/2023 Revision date: 6/5/2025 Supersedes version of: 5/23/2024 Version: 1.5

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

## 1.1. Product identifier

Product form	
Product name	
CAS-No.	
Product code	
Product group	

Mixture
 OIL, SUMMIT GROVE AN
 N/A
 11-0000-20

: Trade product

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

### 1.2.1. Relevant identified uses

No additional information available

### 1.2.2. Uses advised against

### No additional information available

1.3. Details of the supplier of the safety data sheet

The Lebermuth Company 4004 Technology Drive 46628 South Bend, IN United States T 574-259-7000, F 574-258-7450 info@lebermuth.com, www.lebermuth.com

**1.4. Emergency telephone number** 

Emergency number

: CHEMTREC - USA: 800-424-9300 International: +1 703-527-3887 / 1-800-424-9300 CCN 13010

## **SECTION 2: Hazards identification**

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

Serious eye damage/eye irritation, Category 2	H319
Skin sensitisation, Category 1	H317
Hazardous to the aquatic environment – Chronic Hazard,	H411
Category 2	
Full text of H and FUH statements; and postion 16	

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

### Adverse physicochemical, human health and environmental effects

May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.

## 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]		
Hazard pictograms (CLP) :	GHS07 GHS09	
Signal word (CLP) :	Warning	
Contains :	CASSIA EXTRA REDISTILLED OIL; STRAWBERRY FURANONE NATURAL; linalyl acetate; beta-caryophyllene; alpha-pinene; Neryl Acetate; GERANYL ACETATE, NATURAL; eugenol; beta-pinene; I-Limonene; delta-3-carene; beta-phellandrene	
Hazard statements (CLP) :	H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H411 - Toxic to aquatic life with long lasting effects.	

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Precautionary statements (CLP)	<ul> <li>P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.</li> <li>P264 - Wash hands, forearms and face thoroughly after handling.</li> <li>P272 - Contaminated work clothing should not be allowed out of the workplace.</li> <li>P273 - Avoid release to the environment.</li> <li>P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.</li> <li>P302+P352 - IF ON SKIN: Wash with plenty of water.</li> <li>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P321 - Specific treatment (see supplemental first aid instruction on this label).</li> <li>P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.</li> <li>P362+P364 - Take off contaminated clothing and wash it before reuse.</li> <li>P391 - Collect spillage.</li> <li>P501 - Dispose of contents/container to hazardous or special waste collection point, in</li> </ul>
	P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 2.3. Other hazards

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

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	CINNAMALDEHYDE (104-55-2), ALPHA-PINENE (80-56-8), GERANYL ACETATE (105- 87-3), BETA-PINENE (127-91-3), I-Limonene (5989-54-8), CAMPHENE (79-92-5)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	CINNAMALDEHYDE (104-55-2), ALPHA-PINENE (80-56-8), GERANYL ACETATE (105- 87-3), BETA-PINENE (127-91-3), I-Limonene (5989-54-8), CAMPHENE (79-92-5)

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]
LINALYL ACETATE	CAS-No.: 115-95-7 EC-No.: 204-116-4	1 – 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
BETA-PINENE substance with national workplace exposure limit(s) (BE, ES)	CAS-No.: 127-91-3 EC-No.: 204-872-5	1 – 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
EUGENOL	CAS-No.: 97-53-0 EC-No.: 202-589-1	1 – 5	Eye Irrit. 2, H319 Skin Sens. 1B, H317

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
DELTA-3-CARENE	CAS-No.: 13466-78-9 EC-No.: 236-719-3	1 – 5	Skin Sens. 1, H317 Skin Irrit. 2, H315 Flam. Liq. 3, H226 Asp. Tox. 1, H304 Acute Tox. 4 (Inhalation), H332 Aquatic Chronic 2, H411
ALPHA-PINENE substance with national workplace exposure limit(s) (BE, ES)	CAS-No.: 80-56-8 EC-No.: 201-291-9	1 – 5	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
CAMPHOR substance with national workplace exposure limit(s) (BE, FR, GB)	CAS-No.: 464-49-3 EC-No.: 207-355-2	1 – 5	Flam. Sol. 2, H228 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 2, H371 Aquatic Chronic 2, H411
I-Limonene	CAS-No.: 5989-54-8 EC-No.: 227-815-6 EC Index-No.: 601-029-00-7	0.1 – 1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
CINNAMALDEHYDE	CAS-No.: 104-55-2 EC-No.: 203-213-9	0.1 – 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
CAMPHENE	CAS-No.: 79-92-5 EC-No.: 201-234-8	0.1 – 1	Flam. Sol. 2, H228 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
P-MENTHA-1(7),2-DIENE	CAS-No.: 555-10-2 EC-No.: 209-081-9	0.1 – 1	Asp. Tox. 1, H304 Flam. Liq. 3, H226 Skin Sens. 1, H317
BETA-CARYOPHYLLENE	CAS-No.: 87-44-5 EC-No.: 201-746-1	0.1 – 1	Skin Sens. 1B, H317 Asp. Tox. 1, H304
ETHYL ACETOACETATE	CAS-No.: 141-97-9 EC-No.: 205-516-1	0.1 – 1	Aquatic Acute 1, H400
GERANYL ACETATE	CAS-No.: 105-87-3 EC-No.: 203-341-5	0.1 – 1	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
BETA-MYRCENE	CAS-No.: 123-35-3 EC-No.: 204-622-5	0.1 – 1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 2, H411

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ALPHA-CEDRENE	CAS-No.: 469-61-4 EC-No.: 207-418-4	0.1 – 1	Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10) Skin Irrit. 2, H315
BORNEOL	CAS-No.: 507-70-0 EC-No.: 208-080-0	0.1 – 1	Flam. Sol. 1, H228 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400
NERYL ACETATE	CAS-No.: 141-12-8 EC-No.: 205-459-2	0.1 – 1	Skin Sens. 1B, H317
4-Hydroxy-2,5-dimethyl-3(2H)-furanone	CAS-No.: 3658-77-3 EC-No.: 222-908-8	< 0.1	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Skin Sens. 1A, H317

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 : If you feel unwell, seek medical advice. First-aid measures after inhalation Remove person to fresh air and keep comfortable for breathing. 1 First-aid measures after skin contact Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash 1 occurs: Get medical advice/attention. First-aid measures after eye contact 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. First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

 Symptoms/effects after inhalation
 : No data available.

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

- Eye irritation.
- Symptoms/effects after ingestion : No data available.

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

Treat symptomatically.

Symptoms/effects after eye contact

SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable extinguishing media Unsuitable extinguishing media	<ul><li>Water spray. Dry powder. Foam. Carbon dioxide.</li><li>Do not use a heavy water stream.</li></ul>
5.2. Special hazards arising from the subst	ance or mixture
Fire hazard Explosion hazard Hazardous decomposition products in case of fire	<ul> <li>No fire hazard.</li> <li>No direct explosion hazard.</li> <li>Toxic fumes may be released.</li> </ul>
5.3. Advice for firefighters	
Firefighting instructions Protection during firefighting	<ul> <li>Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.</li> <li>Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.</li> </ul>

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SECTION 6: Accidental release measures		
6.1. Personal precautions, protective equip	oment and emergency procedures	
General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.	
6.1.1. For non-emergency personnel		
Protective equipment Emergency procedures	<ul> <li>Wear recommended personal protective equipment.</li> <li>Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.</li> </ul>	
6.1.2. For emergency responders		
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".	
Emergency procedures	: Evacuate unnecessary personnel. Stop leak if safe to do so.	
6.2. Environmental precautions		
Avoid release to the environment.		
6.3. Methods and material for containment	and cleaning up	
For containment Methods for cleaning up Other information	<ul> <li>Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.</li> <li>Take up liquid spill into absorbent material.</li> <li>Dispose of materials or solid residues at an authorized site.</li> </ul>	
6.4. Reference to other sections		

For further information refer to section 13.

SECTION 7: Handling and storag	9	
7.1. Precautions for safe handling		
Additional hazards when processed Precautions for safe handling Hygiene measures	<ul> <li>Not expected to present a significant hazard under anticipated conditions of normal use.</li> <li>Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.</li> <li>Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.</li> </ul>	
7.2. Conditions for safe storage, including any incompatibilities		
Technical measures Storage conditions Packaging materials	<ul> <li>Keep in a cool, well-ventilated place away from heat.</li> <li>Keep cool. Protect from sunlight.</li> <li>Store always product in container of same material as original container.</li> </ul>	
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

CAMPHOR (464-49-3)	
Belgium - Occupational Exposure Limits	
OEL TWA	12 mg/m³ (Camphre (synthétique); Belgium; Time-weighted average exposure limit 8 h)
	2 ppm (Camphre (synthétique); Belgium; Time-weighted average exposure limit 8 h)

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CAMPHOR (464-49-3)			
OEL STEL	19 mg/m³ (Camphre (synthétique); Belgium; Short time value)		
	3 ppm (Camphre (synthétique); Belgium; Short time value)		
France - Occupational Exposure Limits			
VME (OEL TWA)	12 mg/m <sup>3</sup> (Camphre; France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)		
	2 ppm (Camphre; France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)		
United Kingdom - Occupational Exposure Limits	Jnited Kingdom - Occupational Exposure Limits		
WEL TWA (OEL TWA)	13 mg/m <sup>3</sup> Bornan-2-one; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)		
	2 ppm Bornan-2-one; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)		
WEL STEL (OEL STEL)	19 mg/m³ Bornan-2-one; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)		
	3 ppm Bornan-2-one; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)		
USA - ACGIH - Occupational Exposure Limits			
ACGIH OEL TWA	2 ppm (Camphor, synthetic; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)		
ACGIH OEL STEL	3 ppm (Camphor, synthetic; USA; Short time value; TLV - Adopted Value)		
ALPHA-PINENE (80-56-8)			
Belgium - Occupational Exposure Limits			
Local name	Essence de térébenthine et monoterpènes sélectionés # Terpentijn en geselecteerde monoterpenen		
OEL TWA	20 ppm		
Regulatory reference	Koninklijk besluit/Arrêté royal 16/11/2023		
Spain - Occupational Exposure Limits			
Local name	α-pineno (monoterpeno)		
VLA-ED (OEL TWA)	113 mg/m <sup>3</sup>		
	20 ppm		
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2024. INSHT		
BETA-PINENE (127-91-3)			
Belgium - Occupational Exposure Limits			
Local name	Essence de térébenthine et monoterpènes sélectionés # Terpentijn en geselecteerde monoterpenen		
OEL TWA	20 ppm		
Regulatory reference	Koninklijk besluit/Arrêté royal 16/11/2023		
Spain - Occupational Exposure Limits			
Local name	β-pineno (monoterpeno)		
VLA-ED (OEL TWA)	113 mg/m <sup>3</sup>		
	20 ppm		

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### 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:

Wear recommended personal protective equipment.

### Personal protective equipment symbol(s):



#### 8.2.2.1. Eye and face protection

**Eye protection:** Chemical goggles or safety glasses

### 8.2.2.2. Skin protection

**Skin and body protection:** Wear suitable protective clothing

Hand protection: Protective gloves

#### 8.2.2.3. Respiratory protection

**Respiratory protection:** In case of insufficient ventilation, wear suitable respiratory equipment

#### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

#### **Environmental exposure controls:** Avoid release to the environment.

 SECTION 9: Physical and chemical properties

 9.1. Information on basic physical and chemical properties

 Physical state
 : Liquid

 Colour
 : Not available

 Odour
 : Not available

 Odour threshold
 : Not available

 Melting point
 : Not applicable

Freezing point

Boiling point

Flammability

: Not available

: Not available

: Non flammable.

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Lower explosion limit Upper explosion limit Flash point Auto-ignition temperature Decomposition temperature pH Viscosity, kinematic Solubility Partition coefficient n-octanol/water (Log Kow) Vapour pressure Vapour pressure at 50°C Density Relative density Relative vapour density at 20°C	<ul> <li>Not available</li> <li>Not available</li> <li>77 °C</li> <li>Not available</li> <li>Not available</li> <li>Not available</li> <li>Not available</li> <li>Insoluble.</li> <li>Not available</li> </ul>
,	( )
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

Refractive index

: 1.457 (1.447 - 1.467)

## 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.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

**10.6. Hazardous decomposition products** 

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

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

<ul> <li>Not classified</li> <li>Not classified</li> <li>Not classified</li> </ul>
1500 mg/kg bodyweight
> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
0.5 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

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CAMPHOR (464-49-3)		
LC50 Inhalation - Rat (Dust/Mist)	1.5 mg/l/4h	
CINNAMALDEHYDE (104-55-2)		
LD50 oral rat	2220 mg/kg (Rat, Oral)	
LD50 oral	2220 mg/kg	
LD50 dermal rabbit	1260 ml/kg (24 h, Rabbit, Male / female, Experimental value, Dermal)	
LC50 Inhalation - Rat	68.88 mg/l (4 h, Rat, Male / female, QSAR, Inhalation)	
4-Hydroxy-2,5-dimethyl-3(2H)-furanone (3658-77-3)		
LD50 oral rat	2320 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Remarks on results: other:	
LD50 oral	1608 mg/kg bodyweight	
ETHYL ACETOACETATE (141-97-9)		
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Remarks on results: other:	
ALPHA-PINENE (80-56-8)		
LD50 oral rat	> 500 mg/kg bodyweight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 01 day(s))	
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Skin, 14 day(s))	
GERANYL ACETATE (105-87-3)		
LD50 oral rat	6300 mg/kg (Rat, Oral)	
BETA-MYRCENE (123-35-3)		
LD50 oral rat	> 11390 mg/kg bodyweight Animal: rat	
LD50 oral	> 3380 mg/kg bodyweight Animal: mouse	
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)	
BETA-PINENE (127-91-3)		
LD50 oral rat	4700 mg/kg (Rat, Oral)	
CAMPHENE (79-92-5)		
LD50 oral	> 5000 mg/kg (Mouse, Male / female, Experimental value, Oral)	
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Rabbit, Read-across, Skin)	
DELTA-3-CARENE (13466-78-9)		
LD50 oral	4800 mg/kg bodyweight	
LC50 Inhalation - Rat (Dust/Mist)	1.5 mg/l/4h	
Skin corrosion/irritation :	Not classified	
CINNAMALDEHYDE (104-55-2)		
рН	4.7 (1 %, 30 $^\circ\text{C},$ OECD 122: Partition Coefficient (n-Octanol/Water), pH-Metric Method for lonisable Substances)	
Serious eye damage/irritation :	Causes serious eye irritation.	

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CINNAMALDEHYDE (104-55-2)		
pН	4.7 (1 %, 30 °C, OECD 122: Partition Coefficient (n-Octanol/Water), pH-Metric Method for lonisable Substances)	
	May cause an allergic skin reaction.	
Germ cell mutagenicity : Carcinogenicity :	Not classified Not classified	
EUGENOL (97-53-0)		
IARC group	3 - Not classifiable	
BETA-MYRCENE (123-35-3)		
IARC group	2B - Possibly carcinogenic to humans	
	Not classified	
	Not classified	
CAMPHOR (464-49-3)		
STOT-single exposure	May cause damage to organs.	
STOT-repeated exposure :	Not classified	
ETHYL ACETOACETATE (141-97-9)		
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28- Day Oral Toxicity Study in Rodents), Remarks on results: not determinable due to absence of adverse toxic effects	
BETA-MYRCENE (123-35-3)		
LOAEL (oral, rat, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90- Day Oral Toxicity Study in Rodents)	
NOAEL (subchronic, oral, animal/male, 90 days)	500 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
NOAEL (subchronic, oral, animal/female, 90 days)	250 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
Aspiration hazard :	Not classified	
CAMPHOR (464-49-3)		
Viscosity, kinematic	Not applicable	
CINNAMALDEHYDE (104-55-2)		
Viscosity, kinematic	21.25 mm²/s (20 °C, OECD 114: Viscosity of Liquids)	
ALPHA-PINENE (80-56-8)		
Viscosity, kinematic	No data available in the literature	
GERANYL ACETATE (105-87-3)		
Viscosity, kinematic	2.71 mm²/s (20 °C, OECD 114: Viscosity of Liquids)	
BETA-PINENE (127-91-3)		
Viscosity, kinematic	2.5 mm²/s (20 °C, Calculated)	
I-Limonene (5989-54-8)		
Viscosity, kinematic	No data available in the literature	
11.2. Information on other hazards		

No additional information available

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SECTION 12: Ecological information		
12.1. Toxicity		
	Toxic to aquatic life with long lasting effects. Not classified	
	Toxic to aquatic life with long lasting effects.	
CAMPHOR (464-49-3)		
LC50 - Fish [1]	33.25 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)	
EC50 - Crustacea [1]	4.23 mg/l Test organisms (species): Daphnia magna	
EC50 72h - Algae [1]	0.3 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
EC50 72h - Algae [2]	1.71 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
CINNAMALDEHYDE (104-55-2)		
LC50 - Fish [1]	4.15 mg/l (EU Method C.1, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)	
EC50 - Crustacea [1]	3.21 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)	
EC50 72h - Algae [1]	31.6 mg/l (OECD 201: Alga, Growth Inhibition Test, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Growth rate)	
BORNEOL (507-70-0)		
LC50 - Fish [1]	59 – 67.8 mg/l (96 h, Pimephales promelas, Literature study, Other isomer)	
4-Hydroxy-2,5-dimethyl-3(2H)-furanone (3658-	.77-3)	
EC50 - Crustacea [1]	6.8 mg/l Test organisms (species): Daphnia magna	
EC50 72h - Algae [1]	194.03 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	
ETHYL ACETOACETATE (141-97-9)		
LC50 - Fish [1]	> 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)	
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	
ALPHA-PINENE (80-56-8)		
LC50 - Fish [1]	0.303 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)	
EC50 - Crustacea [1]	0.475 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Locomotor effect)	
GERANYL ACETATE (105-87-3)		
LC50 - Fish [1]	68.12 mg/l (DIN 38412: German standard methods for the examination of water, waste water and sludge, 96 h, Leuciscus idus, Static system, Fresh water, Read-across)	
EC50 - Crustacea [1]	14.1 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)	
EC50 72h - Algae [1]	3.72 mg/l (OECD 201: Alga, Growth Inhibition Test, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)	

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BETA-MYRCENE (123-35-3)	BETA-MYRCENE (123-35-3)	
EC50 - Crustacea [1]	1.47 mg/l Test organisms (species): Daphnia magna	
EC50 72h - Algae [1]	0.342 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
EC50 72h - Algae [2]	0.31 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
BETA-PINENE (127-91-3)		
LC50 - Fish [1]	0.557 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Cyprinus carpio, Semi-static system, Fresh water, Weight of evidence, Other isomer)	
ErC50 algae	0.826 mg/l (OECD 201: Alga, Growth Inhibition Test, 48 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Weight of evidence, Other isomer)	
I-Limonene (5989-54-8)		
LC50 - Fish [1]	0.71 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Similar product)	
EC50 - Crustacea [1]	0.36 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Similar product)	
EC50 96h - Algae [1]	0.904 mg/l (ECOSAR, Algae, Flow-through system, Fresh water, Estimated value)	
CAMPHENE (79-92-5)		
LC50 - Fish [1]	0.72 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Brachydanio rerio, Flow-through system, Fresh water, Experimental value, GLP)	
EC50 - Crustacea [1]	0.72 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, GLP)	
EC50 72h - Algae [1]	> 1000 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)	

## 12.2. Persistence and degradability

OIL, SUMMIT GROVE AN (N/A)		
Persistence and degradability	Rapidly degradable	
CAMPHOR (464-49-3)		
Persistence and degradability	Readily biodegradable in water.	
ThOD	2.8 g O <sub>2</sub> /g substance	
CINNAMALDEHYDE (104-55-2)		
Persistence and degradability	Readily biodegradable in water.	
BORNEOL (507-70-0)		
Persistence and degradability	Biodegradable in the soil,Biodegradable in water.	
ThOD	2.9 g O <sub>2</sub> /g substance	
4-Hydroxy-2,5-dimethyl-3(2H)-furanone (3658-77-3)		
Persistence and degradability	Rapidly degradable	
ETHYL ACETOACETATE (141-97-9)		
Persistence and degradability	Rapidly degradable	
LINALYL ACETATE (115-95-7)		
Persistence and degradability	Rapidly degradable	

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BETA-CARYOPHYLLENE (87-44-5)		
Persistence and degradability	Rapidly degradable	
ALPHA-PINENE (80-56-8)		
Persistence and degradability	Readily biodegradable in water.	
ALPHA-CEDRENE (469-61-4)		
Persistence and degradability	Rapidly degradable	
NERYL ACETATE (141-12-8)		
Persistence and degradability	Rapidly degradable	
GERANYL ACETATE (105-87-3)		
Persistence and degradability	Readily biodegradable in water.	
ThOD	2.6 g O <sub>2</sub> /g substance	
EUGENOL (97-53-0)		
Persistence and degradability	Rapidly degradable	
BETA-MYRCENE (123-35-3)		
Persistence and degradability	Readily biodegradable in water.	
BETA-PINENE (127-91-3)		
Persistence and degradability	Readily biodegradable in water.	
I-Limonene (5989-54-8)		
Persistence and degradability	Readily biodegradable in water.	
ThOD	3.29 g O <sub>2</sub> /g substance	
CAMPHENE (79-92-5)		
Persistence and degradability	Not readily biodegradable in water.	
DELTA-3-CARENE (13466-78-9)		
Persistence and degradability	Rapidly degradable	
P-MENTHA-1(7),2-DIENE (555-10-2)		
Persistence and degradability	Rapidly degradable	
12.3. Bioaccumulative potential		
CAMPHOR (464-49-3)		
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
CINNAMALDEHYDE (104-55-2)		
Partition coefficient n-octanol/water (Log Pow)	2.107 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
BORNEOL (507-70-0)		
Partition coefficient n-octanol/water (Log Pow)	2.94 (Calculated)	

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ALPHA-PINENE (80-56-8)		
BCF - Other aquatic organisms [1]	1233.1 – 1248 l/kg (BCFBAF v3.01, Read-across, Fresh weight)	
Partition coefficient n-octanol/water (Log Pow)	4.487 (Experimental value, Equivalent or similar to OECD 107, 25 °C)	
Bioaccumulative potential	Potential for bioaccumulation (500 $\leq$ BCF $\leq$ 5000).	
GERANYL ACETATE (105-87-3)		
BCF - Other aquatic organisms [1]	1500 (Estimated value)	
Partition coefficient n-octanol/water (Log Pow)	4.04 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method)	
Bioaccumulative potential	Potential for bioaccumulation ( $4 \le Log \text{ Kow} \le 5$ ).	
BETA-MYRCENE (123-35-3)		
Partition coefficient n-octanol/water (Log Pow)	5.285 (Literature, 25 °C)	
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).	
BETA-PINENE (127-91-3)		
BCF - Fish [1]	1125 I/kg (BCFBAF v3.01, Pisces, Fresh water, QSAR, Other isomer)	
Partition coefficient n-octanol/water (Log Pow)	4.425 (Similar product, Read-across, Equivalent or similar to OECD 107, 25 °C)	
Bioaccumulative potential	Potential for bioaccumulation ( $4 \le Log \text{ Kow} \le 5$ ).	
I-Limonene (5989-54-8)		
BCF - Fish [1]	683 l/kg (Calculated value)	
Partition coefficient n-octanol/water (Log Pow)	4.38 (Experimental value, Equivalent or similar to OECD 117, 37 °C)	
Bioaccumulative potential	Potential for bioaccumulation ( $4 \le Log \text{ Kow} \le 5$ ).	
CAMPHENE (79-92-5)		
BCF - Fish [1]	432 – 1290 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Fresh water, Experimental value)	
Partition coefficient n-octanol/water (Log Pow)	4.22 (Experimental value, Equivalent or similar to OECD 117, 37 °C)	
Bioaccumulative potential	Potential for bioaccumulation (500 $\leq$ BCF $\leq$ 5000).	

## 12.4. Mobility in soil

CINNAMALDEHYDE (104-55-2)		
Surface tension	45.3 mN/m (20 °C, Experimental value)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.958 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)	
Ecology - soil	Highly mobile in soil.	
BORNEOL (507-70-0)		
Ecology - soil	No (test)data on mobility of the substance available.	
ALPHA-PINENE (80-56-8)		
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.009 – 3.853 (log Koc, SRC PCKOCWIN v2.0, Calculated value)	
Ecology - soil	Low potential for mobility in soil. May be harmful to plant growth, blooming and fruit formation.	

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GERANYL ACETATE (105-87-3)		
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.06 (log Koc, SRC PCKOCWIN v2.0, Calculated value)	
Ecology - soil	Low potential for mobility in soil.	
BETA-MYRCENE (123-35-3)		
Ecology - soil	No (test)data on mobility of the substance available.	
BETA-PINENE (127-91-3)		
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.009 – 3.836 (log Koc, Calculated value, Other isomer)	
Ecology - soil	Low potential for mobility in soil.	
I-Limonene (5989-54-8)		
Surface tension	No data available in the literature	
Ecology - soil	Low potential for mobility in soil.	
CAMPHENE (79-92-5)		
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.081 (log Koc, SRC PCKOCWIN v1.66, Calculated value)	
Ecology - soil	Low potential for mobility in soil.	

### 12.5. Results of PBT and vPvB assessment

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	CINNAMALDEHYDE (104-55-2), ALPHA-PINENE (80-56-8), GERANYL ACETATE (105- 87-3), BETA-PINENE (127-91-3), I-Limonene (5989-54-8), CAMPHENE (79-92-5)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	CINNAMALDEHYDE (104-55-2), ALPHA-PINENE (80-56-8), GERANYL ACETATE (105- 87-3), BETA-PINENE (127-91-3), I-Limonene (5989-54-8), CAMPHENE (79-92-5)

### 12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

: Disposal must be done according to official regulations.
: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Disposal must be done according to official regulations.
: Disposal must be done according to official regulations.
: Do not re-use empty containers.

## **SECTION 14: Transport information**

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

14.1. UN number or ID number			
UN-No. (ADR)	: UN 3082		

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UN-No. (IATA) UN-No. (ADN) UN-No. (RID)	: UN 3082 : UN 3082 : UN 3082
14.2. UN proper shipping name	
Proper Shipping Name (ADR)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Beta-pinene, Delta-3- carene)
Proper Shipping Name (IMDG)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Beta-pinene, Delta-3- carene)
Proper Shipping Name (IATA)	: Environmentally hazardous substance, liquid, n.o.s. (Beta-pinene, Delta-3-carene)
Proper Shipping Name (ADN)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Beta-pinene, Delta-3- carene)
Proper Shipping Name (RID)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Beta-pinene, Delta-3- carene)
Transport document description (ADR)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Beta-pinene, Delta-3-carene), 9, III, (-)
Transport document description (IMDG)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Beta-pinene, Delta-3-carene), 9, III, MARINE POLLUTANT
Transport document description (IATA)	: UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Beta-pinene, Delta-3- carene), 9, III
Transport document description (ADN)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Beta-pinene, Delta-3-carene), 9, III
Transport document description (RID)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Beta-pinene, Delta-3-carene), 9, III
14.3. Transport hazard class(es)	

#### ADR

Transport hazard class(es) (ADR) Danger labels (ADR)



### IMDG

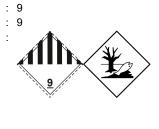
Transport hazard class(es) (IMDG) Danger labels (IMDG)

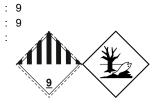
## ΙΑΤΑ

Transport hazard class(es) (IATA) Danger labels (IATA)

### ADN

Transport hazard class(es) (ADN) Danger labels (ADN)







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RID Transport hazard class(es) (RID) Danger labels (RID)	
14.4. Packing group	
Packing group (ADR) Packing group (IMDG) Packing group (IATA) Packing group (ADN) Packing group (RID)	: III : III : III : III : III
14.5. Environmental hazards	
Dangerous for the environment Marine pollutant Other information	<ul> <li>Yes</li> <li>Yes</li> <li>No supplementary information available</li> </ul>
14.6. Special precautions for user	
Overland transport Classification code (ADR) Special provisions (ADR) Limited quantities (ADR) Excepted quantities (ADR) Packing instructions (ADR) Special packing provisions (ADR) Mixed packing provisions (ADR) Portable tank and bulk container instructions (ADR) Portable tank and bulk container special provisions (ADR) Tank code (ADR) Vehicle for tank carriage Transport category (ADR) Special provisions for carriage - Packages (ADR) Special provisions for carriage - Loading, unloading and handling (ADR) Hazard identification number (Kemler No.) Orange plates	$ \begin{array}{c} M6 \\ 274, 335, 375, 601, 650 \\ 5l \\ E1 \\ P001, IBC03, LP01, R001 \\ PP1 \\ MP19 \\ 74 \\ TP1, TP29 \\ \\ LGBV \\ AT \\ 3 \\ V12 \\ CV13 \\ \\ 90 \\ \hline 3082 \\ \end{array} $
Tunnel restriction code (ADR) EAC code	: - : •3Z
Transport by sea Special provisions (IMDG) Limited quantities (IMDG) Excepted quantities (IMDG) Packing instructions (IMDG) Special packing provisions (IMDG) IBC packing instructions (IMDG) Tank instructions (IMDG) Tank special provisions (IMDG) EmS-No. (Fire) EmS-No. (Spillage) Stowage category (IMDG)	<ul> <li>274, 335, 375, 969</li> <li>5 L</li> <li>E1</li> <li>LP01, P001</li> <li>PP1</li> <li>IBC03</li> <li>T4</li> <li>TP1, TP29</li> <li>F-A</li> <li>S-F</li> <li>A</li> </ul>

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Air transport PCA Excepted quantities (IATA) PCA Limited quantities (IATA) PCA limited quantity max net quantity (IATA) PCA packing instructions (IATA) PCA max net quantity (IATA) CAO packing instructions (IATA) CAO max net quantity (IATA) Special provisions (IATA) ERG code (IATA)	<ul> <li>E1</li> <li>Y964</li> <li>30kgG</li> <li>964</li> <li>450L</li> <li>964</li> <li>450L</li> <li>A97, A158, A197, A215</li> <li>9L</li> </ul>
Inland waterway transport Classification code (ADN) Special provisions (ADN) Limited quantities (ADN) Excepted quantities (ADN) Carriage permitted (ADN) Equipment required (ADN) Number of blue cones/lights (ADN)	: M6 : 274, 335, 375, 601, 650 : 5 L : E1 : T : PP : 0
Rail transport Classification code (RID) Special provisions (RID) Limited quantities (RID) Excepted quantities (RID) Packing instructions (RID) Special packing provisions (RID) Mixed packing provisions (RID) Portable tank and bulk container instructions (RID) Portable tank and bulk container special provisions (RID)	<ul> <li>M6</li> <li>274, 335, 375, 601, 650</li> <li>5L</li> <li>E1</li> <li>P001, IBC03, LP01, R001</li> <li>PP1</li> <li>MP19</li> <li>T4</li> <li>TP1, TP29</li> </ul>
Tank codes for RID tanks (RID) Transport category (RID) Special provisions for carriage – Packages (RID) Special provisions for carriage - Loading, unloading and handling (RID) Colis express (express parcels) (RID) Hazard identification number (RID)	

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
3(a)	ALPHA-PINENE ; BETA-MYRCENE ; BETA-PINENE ; I-Limonene ; DELTA-3-CARENE ; P-MENTHA-1(7),2-DIENE
3(b)	OIL, SUMMIT GROVE AN ; CINNAMALDEHYDE ; LINALYL ACETATE ; BETA-CARYOPHYLLENE ; ALPHA-PINENE ; ALPHA-CEDRENE ; NERYL ACETATE ; GERANYL ACETATE ; EUGENOL ; BETA-MYRCENE ; BETA-PINENE ; I-Limonene ; DELTA-3-CARENE ; P-MENTHA-1(7),2-DIENE
3(c)	OIL, SUMMIT GROVE AN ; CINNAMALDEHYDE ; ETHYL ACETOACETATE ; ALPHA-PINENE ; ALPHA-CEDRENE ; GERANYL ACETATE ; BETA-MYRCENE ; BETA-PINENE ; I-Limonene ; DELTA-3-CARENE

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EU restriction list (REA	ACH Annex XVII)
Reference code	Applicable on
40.	CAMPHOR ; BORNEOL ; ALPHA-PINENE ; BETA-MYRCENE ; BETA-PINENE ; I-Limonene ; CAMPHENE ; DELTA- 3-CARENE ; P-MENTHA-1(7),2-DIENE

### **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

#### **Explosives Precursors Regulation (EU 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 (EC 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)

#### 15.1.2. National regulations

#### Germany

Water hazard class (WGK)	<ul> <li>Not classified according to Regulation Governing Systems for Handling Substances Hazardous to Waters (AwSV).</li> </ul>
List of sensitizing substances (TRGS 907)	: Contains sensitizing substances according TRGS 907.
Major Accidents Ordinance (12. BImSchV)	: Is not subject to the Major Accidents Ordinance (12. BImSchV)
Netherlands	
SZW-lijst van kankerverwekkende stoffen	: None of the components are listed
SZW-lijst van mutagene stoffen	: None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	: None of the components are listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	: None of the components are listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling	: 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

## Safety Data Sheet

SECTION 16: Other information			
Abbreviations and acro	Abbreviations and acronyms:		
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways		
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road		
ATE	Acute Toxicity Estimate		
BCF	Bioconcentration factor		
BLV	Biological limit value		
BOD	Biochemical oxygen demand (BOD)		
COD	Chemical oxygen demand (COD)		
DMEL	Derived Minimal Effect level		
DNEL	Derived-No Effect Level		
EC-No.	European Community number		
EC50	Median effective concentration		
EN	European Standard		
IARC	International Agency for Research on Cancer		
ΙΑΤΑ	International Air Transport Association		
IMDG	International Maritime Dangerous Goods		
LC50	Median lethal concentration		
LD50	Median lethal dose		
LOAEL	Lowest Observed Adverse Effect Level		
NOAEC	No-Observed Adverse Effect Concentration		
NOAEL	No-Observed Adverse Effect Level		
NOEC	No-Observed Effect Concentration		
OECD	Organisation for Economic Co-operation and Development		
OEL	Occupational Exposure Limit		
РВТ	Persistent Bioaccumulative Toxic		
PNEC	Predicted No-Effect Concentration		
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail		
SDS	Safety Data Sheet		
STP	Sewage treatment plant		
ThOD	Theoretical oxygen demand (ThOD)		
TLM	Median Tolerance Limit		
VOC	Volatile Organic Compounds		
CAS-No.	Chemical Abstract Service number		
N.O.S.	Not Otherwise Specified		
vPvB	Very Persistent and Very Bioaccumulative		
ED	Endocrine disrupting properties		

Full text of H- and EUF	I-statements:
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4

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Full text of H- and EUH-statements:	
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. 1	Flammable solids, Category 1
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.
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 Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
Skin Sens. 1B	Skin sensitisation, category 1B
STOT SE 2	Specific target organ toxicity – Single exposure, Category 2

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.