

# Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



## Oil of juniper , pure

article number: **7059**  
Version: **3.0 en**  
Replaces version of: 09.03.2023  
Version: (2)

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Revision: 04.03.2024

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

### 1.1 Product identifier

Identification of the substance	<b>Oil of juniper , pure</b>
Article number	7059
Registration number (REACH)	01-2120110803-69-xxxx
EC number	616-801-9
CAS number	8002-68-4
Alternative name(s)	Oleum Juniperi e baccis

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

Relevant identified uses:	Laboratory chemical Laboratory and analytical use
Uses advised against:	Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household). Food, drink and animal feeding-stuffs.

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

Carl Roth GmbH + Co. KG  
Schoemperlenstr. 3-5  
D-76185 Karlsruhe  
Germany

**Telephone:**+49 (0) 721 - 56 06 0

**Telefax:** +49 (0) 721 - 56 06 149

**e-mail:** sicherheit@carlroth.de

**Website:** www.carlroth.de

Competent person responsible for the safety data sheet: Department Health, Safety and Environment

**e-mail (competent person):** sicherheit@carlroth.de

### 1.4 Emergency telephone number

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

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

Section	Hazard class	Cat-egory	Hazard class and category	Hazard statement
2.6	Flammable liquid	3	Flam. Liq. 3	H226
3.2	Skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	Serious eye damage/eye irritation	2	Eye Irrit. 2	H319
3.4S	Skin sensitisation	1	Skin Sens. 1	H317

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Section	Hazard class	Cat-egory	Hazard class and category	Hazard statement
3.10	Aspiration hazard	1	Asp. Tox. 1	H304
4.1C	Hazardous to the aquatic environment - chronic hazard	2	Aquatic Chronic 2	H411

For full text of abbreviations: see SECTION 16

### The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources. Spillage and fire water can cause pollution of watercourses.

## 2.2 Label elements

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

#### Signal word

**Danger**

#### Pictograms

GHS02, GHS07,  
GHS08, GHS09



#### Hazard statements

H226 Flammable liquid and vapour  
H304 May be fatal if swallowed and enters airways  
H315 Causes skin irritation  
H317 May cause an allergic skin reaction  
H319 Causes serious eye irritation  
H411 Toxic to aquatic life with long lasting effects

#### Precautionary statements

##### Precautionary statements - prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P280 Wear protective gloves/eye protection

##### Precautionary statements - response

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]

#### Labelling of packages where the contents do not exceed 125 ml

Signal word: **Danger**

Symbol(s)



H304 May be fatal if swallowed and enters airways.  
H317 May cause an allergic skin reaction.  
P280 Wear protective gloves/eye protection.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

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### 2.3 Other hazards

#### Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

#### Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0,1\%$ .

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

"UVCB substance" (substance of unknown or variable composition).

Name of substance	Oil of juniper
REACH Reg. No	01-2120110803-69-xxxx
CAS No	8002-68-4
EC No	616-801-9

#### Impurities/additives/constituents:

Name of substance	Identifier	Wt%
DL- $\alpha$ -Pinene	CAS No 80-56-8  EC No 201-291-9	25 - < 50
Myrcene	CAS No 123-35-3  EC No 204-622-5	5 - < 10
$\beta$ -Pinene	CAS No 127-91-3  EC No 204-872-5	5 - < 10
Sabinene	CAS No 3387-41-5  EC No 222-212-4	5 - < 10
$\alpha$ -Thujone	CAS No 2867-05-2  EC No 220-686-7	1 - < 5
Germacrene D	CAS No 37839-63-7  EC No 817-191-9	1 - < 5
$\gamma$ -Terpinene	CAS No 99-85-4  EC No 202-794-6	1 - < 5

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Name of substance	Identifier	Wt%
DL-Limonene	CAS No 138-86-3  EC No 205-341-0  Index No 601-029-00-7	1 - < 5
$\beta$ -Caryophyllene	CAS No 87-44-5  EC No 201-746-1	1 - < 5
Terpinolene	CAS No 586-62-9  EC No 209-578-0	< 1
Camphene	CAS No 79-92-5  EC No 201-234-8	< 1

### Remarks

For full text of abbreviations: see SECTION 16

## SECTION 4: First aid measures

### 4.1 Description of first aid measures



#### General notes

Take off contaminated clothing.

#### Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following skin contact

Rinse skin with water/shower. After contact with skin, wash immediately with plenty of water. In case of skin reactions, consult a physician. In case of skin irritation, consult a physician.

#### Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.

#### Following ingestion

Call a physician immediately. Observe aspiration hazard if vomiting occurs.

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

Aspiration hazard, Irritation, Allergic reactions

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

none

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media



#### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings!  
water spray, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

#### Unsuitable extinguishing media

water jet

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

Combustible. In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture. Solvent vapours are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapours may form explosive mixtures with air.

#### Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), May produce toxic fumes of carbon monoxide if burning.

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Do not allow firefighting water to enter drains or water courses. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

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



#### For non-emergency personnel

Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray. Avoidance of ignition sources.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

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

#### Advice on how to contain a spill

Covering of drains.

#### Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

#### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

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### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Provision of sufficient ventilation.

#### Measures to prevent fire as well as aerosol and dust generation



Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharge.

#### Measures to protect the environment

Avoid release to the environment.

#### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs. When using do not smoke.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Consideration of other advice:

Ground/bond container and receiving equipment.

#### Ventilation requirements

Use local and general ventilation.

#### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### National limit values

#### Occupational exposure limit values (Workplace Exposure Limits)

This information is not available.

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Relevant DNELs of components						
Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DL- $\alpha$ -Pinene	80-56-8	DNEL	3,8 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
DL- $\alpha$ -Pinene	80-56-8	DNEL	0,542 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
$\beta$ -Pinene	127-91-3	DNEL	5,69 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
$\beta$ -Pinene	127-91-3	DNEL	0,8 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
$\beta$ -Pinene	127-91-3	DNEL	54 $\mu$ g/cm <sup>2</sup>	human, dermal	worker (industry)	chronic - local effects
$\gamma$ -Terpinene	99-85-4	DNEL	2,939 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
$\gamma$ -Terpinene	99-85-4	DNEL	0,833 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Camphene	79-92-5	DNEL	110,2 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
Camphene	79-92-5	DNEL	110,2 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - systemic effects
Camphene	79-92-5	DNEL	0,21 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Camphene	79-92-5	DNEL	1,25 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects

Relevant PNECs of components						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
DL- $\alpha$ -Pinene	80-56-8	PNEC	0,606 $\mu$ g/l	aquatic organisms	freshwater	short-term (single instance)
DL- $\alpha$ -Pinene	80-56-8	PNEC	0,061 $\mu$ g/l	aquatic organisms	marine water	short-term (single instance)
DL- $\alpha$ -Pinene	80-56-8	PNEC	0,2 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
DL- $\alpha$ -Pinene	80-56-8	PNEC	157 $\mu$ g/kg	aquatic organisms	freshwater sediment	short-term (single instance)
DL- $\alpha$ -Pinene	80-56-8	PNEC	15,7 $\mu$ g/kg	aquatic organisms	marine sediment	short-term (single instance)
DL- $\alpha$ -Pinene	80-56-8	PNEC	31,7 $\mu$ g/kg	terrestrial organisms	soil	short-term (single instance)
$\beta$ -Pinene	127-91-3	PNEC	1,004 $\mu$ g/l	aquatic organisms	freshwater	short-term (single instance)
$\beta$ -Pinene	127-91-3	PNEC	0,1 $\mu$ g/l	aquatic organisms	marine water	short-term (single instance)
$\beta$ -Pinene	127-91-3	PNEC	3,26 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)

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Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
$\beta$ -Pinene	127-91-3	PNEC	0,337 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
$\beta$ -Pinene	127-91-3	PNEC	0,034 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
$\beta$ -Pinene	127-91-3	PNEC	0,067 mg/kg	terrestrial organisms	soil	short-term (single instance)
$\gamma$ -Terpinene	99-85-4	PNEC	0,003 mg/l	aquatic organisms	freshwater	short-term (single instance)
$\gamma$ -Terpinene	99-85-4	PNEC	0 mg/l	aquatic organisms	marine water	short-term (single instance)
$\gamma$ -Terpinene	99-85-4	PNEC	10 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
$\gamma$ -Terpinene	99-85-4	PNEC	0,49 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
$\gamma$ -Terpinene	99-85-4	PNEC	0,049 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
$\gamma$ -Terpinene	99-85-4	PNEC	0,423 mg/kg	terrestrial organisms	soil	short-term (single instance)
Camphene	79-92-5	PNEC	0,001 mg/l	aquatic organisms	freshwater	short-term (single instance)
Camphene	79-92-5	PNEC	0 mg/l	aquatic organisms	marine water	short-term (single instance)
Camphene	79-92-5	PNEC	10 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Camphene	79-92-5	PNEC	0,026 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Camphene	79-92-5	PNEC	0,003 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Camphene	79-92-5	PNEC	0,021 mg/kg	terrestrial organisms	soil	short-term (single instance)

## 8.2 Exposure controls

### Individual protection measures (personal protective equipment)

#### Eye/face protection



Use safety goggle with side protection.

#### Skin protection





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### • hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

### • type of material

NBR (Nitrile rubber)

### • material thickness

>0,3 mm

### • breakthrough times of the glove material

>480 minutes (permeation: level 6)

### • other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

### Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C , colour code: Brown).

### Environmental exposure controls

Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	yellow
Odour	characteristic
Melting point/freezing point	<-20 °C (ECHA)
Boiling point or initial boiling point and boiling range	171,1 °C at 101,3 kPa (ECHA)
Flammability	flammable liquid in accordance with GHS criteria
Lower and upper explosion limit	not determined
Flash point	38,5 °C at 102,3 kPa (ECHA)
Auto-ignition temperature	240 °C at 100.167 Pa (ECHA)
Decomposition temperature	not relevant
pH (value)	not determined
Kinematic viscosity	not determined

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### Solubility(ies)

Water solubility (practically insoluble)

### Partition coefficient

Partition coefficient n-octanol/water (log value): this information is not available

Vapour pressure not determined

### Density and/or relative density

Density 0,867 g/cm<sup>3</sup> at 20 °C

Relative vapour density Information on this property is not available.

Particle characteristics not relevant (liquid)

### Other safety parameters

Oxidising properties none

## 9.2 Other information

Information with regard to physical hazard classes: There is no additional information.

Other safety characteristics:

Surface tension 61,86 mN/m (19,8 °C) (ECHA)

Temperature class (EU, acc. to ATEX) T3  
Maximum permissible surface temperature on the equipment: 200°C

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

It's a reactive substance. Risk of ignition.

#### **If heated**

Risk of ignition. Vapours may form explosive mixtures with air.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

**Violent reaction with:** strong oxidiser

### 10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

### 10.5 Incompatible materials

There is no additional information.

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### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

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

#### Classification according to GHS (1272/2008/EC, CLP)

##### Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity					
Exposure route	Endpoint	Value	Species	Method	Source
oral	LD50	>5.000 mg/kg	rat		ECHA

Acute toxicity of components					
Name of substance	CAS No	Exposure route	Endpoint	Value	Species
DL- $\alpha$ -Pinene	80-56-8	dermal	LD50	>2.000 mg/kg	rat
DL- $\alpha$ -Pinene	80-56-8	oral	LD50	3.700 mg/kg	rat
$\beta$ -Pinene	127-91-3	oral	LD50	4.700 mg/kg	rat
Myrcene	123-35-3	oral	LD50	>3.380 mg/kg	mouse
Myrcene	123-35-3	dermal	LD50	>5.000 mg/kg	rabbit
Sabinene	3387-41-5	oral	LD50	301 – 2.000 mg/kg	rat
$\gamma$ -Terpinene	99-85-4	oral	LD50	>2.000 mg/kg	rat
$\gamma$ -Terpinene	99-85-4	dermal	LD50	>2.000 mg/kg	rat
$\beta$ -Caryophyllene	87-44-5	oral	LD50	>5.000 mg/kg	mouse
DL-Limonene	138-86-3	oral	LD50	5.300 mg/kg	rat
Terpinolene	586-62-9	oral	LD50	>2.000 mg/kg	rat
Terpinolene	586-62-9	dermal	LD50	>2.000 mg/kg	rat

##### Skin corrosion/irritation

Causes skin irritation.

##### Serious eye damage/eye irritation

Causes serious eye irritation.

##### Respiratory or skin sensitisation

May cause an allergic skin reaction.

##### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

##### Carcinogenicity

Shall not be classified as carcinogenic.

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### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

May be fatal if swallowed and enters airways.

### Symptoms related to the physical, chemical and toxicological characteristics

#### • If swallowed

aspiration hazard

#### • If in eyes

Causes serious eye irritation

#### • If inhaled

Data are not available.

#### • If on skin

causes skin irritation, May produce an allergic reaction, pruritis, localised redness

#### • Other information

none

### 11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0,1\%$ .

### 11.3 Information on other hazards

There is no additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity

Toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
DL- $\alpha$ -Pinene	80-56-8	LC50	0,303 mg/l	fish	96 h
DL- $\alpha$ -Pinene	80-56-8	EC50	0,475 mg/l	aquatic invertebrates	48 h
$\beta$ -Pinene	127-91-3	LC50	0,68 mg/l	rainbow trout (Oncorhynchus mykiss)	96 h
$\beta$ -Pinene	127-91-3	EC50	1,09 mg/l	daphnia magna	48 h
$\beta$ -Pinene	127-91-3	ErC50	0,7 mg/l	Pseudokirchneriella subcapitata	72 h
Myrcene	123-35-3	EC50	1,47 mg/l	aquatic invertebrates	48 h

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Aquatic toxicity (acute) of components					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Myrcene	123-35-3	EC50	0,31 mg/l	algae	72 h
Myrcene	123-35-3	ErC50	0,342 mg/l	algae	72 h
Sabinene	3387-41-5	EC50	3.960 mg/l	aquatic invertebrates	48 h
γ-Terpinene	99-85-4	EC50	2,792 mg/l	fish	96 h
β-Caryophyllene	87-44-5	EC50	>0,17 mg/l	daphnia magna	48 h
β-Caryophyllene	87-44-5	ErC50	>0,033 mg/l	algae	72 h
DL-Limonene	138-86-3	EC50	17 mg/l	daphnia magna	48 h
DL-Limonene	138-86-3	LC50	80 mg/l	rainbow trout (Oncorhynchus mykiss)	96 h
Terpinolene	586-62-9	LC50	0,805 mg/l	fish	96 h
Terpinolene	586-62-9	EC50	0,634 mg/l	aquatic invertebrates	48 h
Terpinolene	586-62-9	ErC50	0,692 mg/l	algae	72 h
Camphene	79-92-5	LC50	0,72 mg/l	fish	96 h
Camphene	79-92-5	EC50	0,72 mg/l	aquatic invertebrates	48 h
Camphene	79-92-5	ErC50	>1.000 mg/l	algae	72 h

Aquatic toxicity (chronic) of components					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
β-Pinene	127-91-3	EC50	326 mg/l	microorganisms	3 h
γ-Terpinene	99-85-4	EC50	>1.000 mg/l	microorganisms	3 h
Terpinolene	586-62-9	EC50	69 mg/l	microorganisms	3 h
Camphene	79-92-5	EC50	>1.000 mg/l	microorganisms	3 h

## 12.2 Persistence and degradability

Degradability of components						
Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
DL-α-Pinene	80-56-8	oxygen depletion	68 %	28 d		ECHA
β-Pinene	127-91-3	oxygen depletion	76 %	28 d		ECHA
Myrcene	123-35-3	oxygen depletion	76 %	28 d		ECHA
Sabinene	3387-41-5	oxygen depletion	36 %	28 d		ECHA

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Degradability of components						
Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
$\gamma$ -Terpinene	99-85-4	oxygen depletion	27 %	28 d		ECHA
$\beta$ -Caryophyllene	87-44-5	oxygen depletion	10 %	28 d		ECHA
Terpinolene	586-62-9	oxygen depletion	81 %	28 d		ECHA

### 12.3 Bioaccumulative potential

Data are not available.

Bioaccumulative potential of components				
Name of substance	CAS No	BCF	Log KOW	BOD5/COD
DL- $\alpha$ -Pinene	80-56-8		4,83	
Myrcene	123-35-3		4,82 (pH value: ~6,5, 30 °C)	
$\gamma$ -Terpinene	99-85-4		5,4 (25 °C)	
$\beta$ -Caryophyllene	87-44-5		6,23 (pH value: 7, 25 °C)	
DL-Limonene	138-86-3		4,57	
Terpinolene	586-62-9		4,47	
Camphene	79-92-5		4,22 (pH value: 7,2, 37 °C)	

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0,1\%$ .

### 12.7 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

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### Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

#### Properties of waste which render it hazardous

- HP 3** flammable
- HP 4** irritant - skin irritation and eye damage
- HP 5** specific target organ toxicity (STOT)/aspiration toxicity
- HP 13** sensitising
- HP 14** ecotoxic

### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions. Non-contaminated packages may be recycled.

## SECTION 14: Transport information

### 14.1 UN number or ID number

ADR	UN 1197
IMDG-Code	UN 1197
ICAO-TI	UN 1197

### 14.2 UN proper shipping name

ADR	EXTRACTS, LIQUID
IMDG-Code	EXTRACTS, LIQUID
ICAO-TI	Extracts, liquid

### 14.3 Transport hazard class(es)

ADR	3
IMDG-Code	3
ICAO-TI	3

### 14.4 Packing group

ADR	III
IMDG-Code	III
ICAO-TI	III

### 14.5 Environmental hazards

hazardous to the aquatic environment

### 14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

### 14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

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### 14.8 Information for each of the UN Model Regulations

#### Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) Additional information

Proper shipping name	EXTRACTS, LIQUID
Particulars in the transport document	UN1197, EXTRACTS, LIQUID, 3, III, (D/E), environmentally hazardous
Classification code	F1
Danger label(s)	3, "Fish and tree"
 	
Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	601
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
Transport category (TC)	3
Tunnel restriction code (TRC)	D/E
Hazard identification No	30

#### International Maritime Dangerous Goods Code (IMDG) - Additional information

Proper shipping name	EXTRACTS, LIQUID
Particulars in the shipper's declaration	UN1197, EXTRACTS, LIQUID, (Oil of juniper), 3, III, 38,5°C c.c., MARINE POLLUTANT
Marine pollutant	yes (hazardous to the aquatic environment)
Danger label(s)	3, "Fish and tree"
 	
Special provisions (SP)	223, 955
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
EmS	F-E, S-D
Stowage category	A

#### International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Proper shipping name	Extracts, liquid
Particulars in the shipper's declaration	UN1197, Extracts, liquid, 3, III
Environmental hazards	yes (hazardous to the aquatic environment)
Danger label(s)	3





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Special provisions (SP)	A3
Excepted quantities (EQ)	E1
Limited quantities (LQ)	10 L

## SECTION 15: Regulatory information

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

#### Relevant provisions of the European Union (EU)

#### Restrictions according to REACH, Annex XVII

Dangerous substances with restrictions (REACH, Annex XVII)				
Name of substance	Name acc. to inventory	CAS No	Restriction	No
Oil of juniper	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		R3	3
Oil of juniper	flammable / pyrophoric		R40	40
Oil of juniper	substances in tattoo inks and permanent make-up		R75	75

#### Legend

- R3
1. Shall not be used in:
    - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
    - tricks and jokes,
    - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
  2. Articles not complying with paragraph 1 shall not be placed on the market.
  3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
    - can be used as fuel in decorative oil lamps for supply to the general public, and
    - present an aspiration hazard and are labelled with H304.
  4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
  5. Without prejudice to the implementation of other Union provisions relating to the classification, labelling and packaging of substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
    - (a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil – or even sucking the wick of lamps – may lead to life-threatening lung damage";
    - (b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter fluid may lead to life threatening lung damage";
    - (c) lamps oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.;
- R40
1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:
    - metallic glitter intended mainly for decoration,
    - artificial snow and frost,
    - 'whoopie' cushions,
    - silly string aerosols,
    - imitation excrement,
    - horns for parties,
    - decorative flakes and foams,
    - artificial cobwebs,
    - stink bombs.
  2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:  
'For professional users only'.
  3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/324/EEC (2).
  4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.

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### Legend

- R75
1. Shall not be placed on the market in mixtures for use for tattooing purposes, and mixtures containing any such substances shall not be used for tattooing purposes, after 4 January 2022 if the substance or substances in question is or are present in the following circumstances:
    - (a) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
    - (b) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as reproductive toxicant category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
    - (c) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin sensitiser category 1, 1A or 1B, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
    - (d) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2, or as serious eye damage category 1 or eye irritant category 2, the substance is present in the mixture in a concentration equal to or greater than:
      - (i) 0,1 % by weight, if the substance is used solely as a pH regulator;
      - (ii) 0,01 % by weight, in all other cases;
    - (e) in the case of a substance listed in Annex II to Regulation (EC) No 1223/2009 (\*1), the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
    - (f) in the case of a substance for which a condition of one or more of the following kinds is specified in column g (Product type, Body parts) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight:
      - (i) "Rinse-off products";
      - (ii) "Not to be used in products applied on mucous membranes";
      - (iii) "Not to be used in eye products";
    - (g) in the case of a substance for which a condition is specified in column h (Maximum concentration in ready for use preparation) or column i (Other) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration, or in some other way, that does not accord with the condition specified in that column;
    - (h) in the case of a substance listed in Appendix 13 to this Annex, the substance is present in the mixture in a concentration equal to or greater than the concentration limit specified for that substance in that Appendix.
  2. For the purposes of this entry use of a mixture "for tattooing purposes" means injection or introduction of the mixture into a person's skin, mucous membrane or eyeball, by any process or procedure (including procedures commonly referred to as permanent make-up, cosmetic tattooing, micro-blading and micro-pigmentation), with the aim of making a mark or design on his or her body.
  3. If a substance not listed in Appendix 13 falls within more than one of points (a) to (g) of paragraph 1, the strictest concentration limit laid down in the points in question shall apply to that substance. If a substance listed in Appendix 13 also falls within one or more of points (a) to (g) of paragraph 1, the concentration limit laid down in point (h) of paragraph 1 shall apply to that substance.
  4. By way of derogation, paragraph 1 shall not apply to the following substances until 4 January 2023:
    - (a) Pigment Blue 15:3 (CI 74160, EC No 205-685-1, CAS No 147-14-8);
    - (b) Pigment Green 7 (CI 74260, EC No 215-524-7, CAS No 1328-53-6).
  5. If Part 3 of Annex VI to Regulation (EC) No 1272/2008 is amended after 4 January 2021 to classify or re-classify a substance such that the substance then becomes caught by point (a), (b), (c) or (d) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the date of application of that new or revised classification is after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect on the date of application of that new or revised classification.
  6. If Annex II or Annex IV to Regulation (EC) No 1223/2009 is amended after 4 January 2021 to list or change the listing of a substance such that the substance then becomes caught by point (e), (f) or (g) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the amendment takes effect after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect from the date falling 18 months after entry into force of the act by which that amendment was made.
  7. Suppliers placing a mixture on the market for use for tattooing purposes shall ensure that, after 4 January 2022, the mixture is marked with the following information:
    - (a) the statement "Mixture for use in tattoos or permanent make-up";
    - (b) a reference number to uniquely identify the batch;
    - (c) the list of ingredients in accordance with the nomenclature established in the glossary of common ingredient names pursuant to Article 33 of Regulation (EC) No 1223/2009, or in the absence of a common ingredient name, the IUPAC name. In the absence of a common ingredient name or IUPAC name, the CAS and EC number. Ingredients shall be listed in descending order by weight or volume of the ingredients at the time of formulation. "Ingredient" means any substance added during the process of formulation and present in the mixture for use for tattooing purposes. Impurities shall not be regarded as ingredients. If the name of a substance, used as ingredient within the meaning of this entry, is already required to be stated on the label in accordance with Regulation (EC) No 1272/2008, that ingredient does not need to be marked in accordance with this Regulation;
    - (d) the additional statement "pH regulator" for substances falling under point (d)(i) of paragraph 1;
    - (e) the statement "Contains nickel. Can cause allergic reactions." if the mixture contains nickel below the concentration limit specified in Appendix 13;
    - (f) the statement "Contains chromium (VI). Can cause allergic reactions." if the mixture contains chromium (VI) below the concentration limit specified in Appendix 13;
    - (g) safety instructions for use insofar as they are not already required to be stated on the label by Regulation (EC) No 1272/2008.The information shall be clearly visible, easily legible and marked in a way that is indelible. The information shall be written in the official language(s) of the Member State(s) where the mixture is placed on the market, unless the Member State(s) concerned provide(s) otherwise. Where necessary because of the size of the package, the information listed in the first subparagraph, except for point (a), shall be included instead in the instructions for use. Before using a mixture for tattooing purposes, the person using the mixture shall provide the person undergoing the procedure with the information marked on the package or included in the instructions for use pursuant to this paragraph.
  8. Mixtures that do not contain the statement "Mixture for use in tattoos or permanent make-up" shall not be used for tattooing purposes.

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9. This entry does not apply to substances that are gases at temperature of 20 °C and pressure of 101,3 kPa, or generate a vapour pressure of more than 300 kPa at temperature of 50 °C, with the exception of formaldehyde (CAS No 50-00-0, EC No 200-001-8).

10. This entry does not apply to the placing on the market of a mixture for use for tattooing purposes, or to the use of a mixture for tattooing purposes, when placed on the market exclusively as a medical device or an accessory to a medical device, within the meaning of Regulation (EU) 2017/745, or when used exclusively as a medical device or an accessory to a medical device, within the same meaning. Where the placing on the market or use may not be exclusively as a medical device or an accessory to a medical device, the requirements of Regulation (EU) 2017/745 and of this Regulation shall apply cumulatively.

### List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

Not listed.

### Seveso Directive

2012/18/EU (Seveso III)			
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements	Notes
E2	environmental hazards (hazardous to the aquatic environment, cat. 2)	200                      500	57)

### Notation

57) Hazardous to the Aquatic Environment in category Chronic 2

### Deco-Paint Directive

VOC content	100 %
VOC content	867 g/l

### Industrial Emissions Directive (IED)

VOC content	100 %
VOC content	867 g/l

### Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

not listed

### Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

not listed

### Water Framework Directive (WFD)

not listed

### Regulation on the marketing and use of explosives precursors

not listed

### Regulation on drug precursors

not listed

### Regulation on substances that deplete the ozone layer (ODS)

not listed

### Regulation concerning the export and import of hazardous chemicals (PIC)

not listed

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### Regulation on persistent organic pollutants (POP)

not listed

### Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

### National inventories

Country	Inventory	Status
AU	AIIC	substance is listed
CA	DSL	substance is listed
CN	IECSC	substance is listed
KR	KECI	substance is listed
NZ	NZIoC	substance is listed
PH	PICCS	substance is listed
TW	TCSI	substance is listed
US	TSCA	substance is listed (ACTIVE)
VN	NCI	substance is listed

#### Legend

AIIC	Australian Inventory of Industrial Chemicals
DSL	Domestic Substances List (DSL)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
KECI	Korea Existing Chemicals Inventory
NCI	National Chemical Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

## 15.2 Chemical safety assessment

According to REACH, Article 14 (1) a chemical safety assessment has been carried out for this substance or components of this mixture when the substance has been registered in quantities of 10 tonnes or more per year per registrant.

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
2.3	Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$ .	Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$ .	yes
15.1		National inventories: change in the listing (table)	yes
15.2	Chemical Safety Assessment: No Chemical Safety Assessment has been carried out for this substance.	Chemical safety assessment: According to REACH, Article 14 (1) a chemical safety assessment has been carried out for this substance or components of this mixture when the substance has been registered in quantities of 10 tonnes or more per year per registrant.	yes

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### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
ED	Endocrine disruptor
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
log KOW	n-Octanol/water
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
SVHC	Substance of Very High Concern

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Abbr.	Descriptions of used abbreviations
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.