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



Oil of silver fir needles , natural

article number: **3353** Version: **2.0 en** Replaces version of: 2020-02-17 Version: (1)

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

1.1 Product identifier

Identification of the substance	Oil of silver fir needles , natural
Article number	3353
EC number	289-870-2
CAS number	8021-27-0
Alternative name(s)	Oleum Abietis

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

Relevant identified uses:

Uses advised against:

Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household).

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 :Department Health, Safety and Environment sheet:

e-mail (competent person):

sicherheit@carlroth.de

Laboratory chemical

Laboratory and analytical use

1.4 Emergency telephone number

Name	Street	Postal code/city	Telephone	Website
National Poisons Information Service City Hospital	Dudley Rd	B187QH Birmingham	844 892 0111	

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification acc. to GHS

date of compilation: 2020-02-17 Revision: 2022-08-08

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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
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

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
- P273 Avoid release to the environment

Precautionary statements - response

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

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.

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SECTION 3: Composition/information on ingredients

3.1 Substances

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

Name of substance	Oil of silver fir needles
CAS No	8021-27-0
EC No	289-870-2

Impurities/additives/constituents:

Name of substance	Identifier	Wt%
DL-a-Pinene	CAS No 80-56-8	25 - < 50
	EC No 201-291-9	
ß-Pinene	CAS No 127-91-3	10-<25
	EC No 204-872-5	
Camphene	CAS No 79-92-5	10-<25
	EC No 201-234-8	
β-Caryophyllene	CAS No 87-44-5	5 - < 10
	EC No 201-746-1	
Myrcene	CAS No 123-35-3	<1
	EC No 204-622-5	
Terpinolene	CAS No 586-62-9	<1
	EC No 209-578-0	

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.

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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

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 (CO₂)

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 vapourair 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 (CO₂), 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.

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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. Danger of explosion.

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.

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.

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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.

Relevant DNELs	Relevant DNELs of components of the mixture					
Name of sub- stance	CAS No	End- point	Threshol d level	Protection goal, route of exposure	Used in	Exposure time
DL-α-Pinene	80-56-8	DNEL	3,8 mg/m ³	human, inhalat- ory	worker (industry)	chronic - systemic effects
DL-α-Pinene	80-56-8	DNEL	0,542 mg/ kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
ß-Pinene	127-91-3	DNEL	5,69 mg/ m³	human, inhalat- ory	worker (industry)	chronic - systemic effects
ß-Pinene	127-91-3	DNEL	0,8 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
ß-Pinene	127-91-3	DNEL	54 µg/cm²	human, dermal	worker (industry)	chronic - local ef- fects
Camphene	79-92-5	DNEL	110,2 mg/ m ³	human, inhalat- ory	worker (industry)	chronic - systemic effects
Camphene	79-92-5	DNEL	110,2 mg/ m ³	human, inhalat- ory	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 of the mixture

Name of sub- stance	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time
DL-α-Pinene	80-56-8	PNEC	0,606 ^{µg} / _l	aquatic organ- isms	freshwater	short-term (single instance)
DL-a-Pinene	80-56-8	PNEC	0,061 ^{µg} / _l	aquatic organ- isms	marine water	short-term (single instance)



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Relevant PNECs	of compone	ents of th	ne mixture			
Name of sub- stance	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time
DL-a-Pinene	80-56-8	PNEC	0,2 ^{mg} / _l	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)
DL-a-Pinene	80-56-8	PNEC	157 ^{µg} / _{kg}	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)
DL-a-Pinene	80-56-8	PNEC	15,7 ^{µg} / _{kg}	aquatic organ- isms	marine sediment	short-term (single instance)
DL-a-Pinene	80-56-8	PNEC	31,7 ^{µg} / _{kg}	terrestrial organ- isms	soil	short-term (single instance)
ß-Pinene	127-91-3	PNEC	1,004 ^{µg} / _l	aquatic organ- isms	freshwater	short-term (single instance)
ß-Pinene	127-91-3	PNEC	0,1 ^{µg} / _l	aquatic organ- isms	marine water	short-term (single instance)
ß-Pinene	127-91-3	PNEC	3,26 ^{mg} / _l	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)
ß-Pinene	127-91-3	PNEC	0,337 ^{mg} / _{kg}	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)
ß-Pinene	127-91-3	PNEC	0,034 ^{mg} / kg	aquatic organ- isms	marine sediment	short-term (single instance)
ß-Pinene	127-91-3	PNEC	0,067 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single instance)
Camphene	79-92-5	PNEC	0,001 ^{mg} / _l	aquatic organ- isms	freshwater	short-term (single instance)
Camphene	79-92-5	PNEC	0 ^{mg} /l	aquatic organ- isms	marine water	short-term (single instance)
Camphene	79-92-5	PNEC	10 ^{mg} / _l	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)
Camphene	79-92-5	PNEC	0,026 ^{mg} / kg	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)
Camphene	79-92-5	PNEC	0,003 ^{mg} / kg	aquatic organ- isms	marine sediment	short-term (single instance)
Camphene	79-92-5	PNEC	0,021 ^{mg} / kg	terrestrial organ- isms	soil	short-term (single instance)

8.2 **Exposure controls**

Individual protection measures (personal protective equipment)

Eye/face protection



Use safety goggle with side protection.



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Skin protection



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 consider-able 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

Butyl caoutchouc (butyl rubber)

material thickness

0,5 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	clear - light yellow - light brown
Odour	characteristic
Melting point/freezing point	<-20 °C (ECHA)
Boiling point or initial boiling point and boiling range	169,5 °C at 1.013 hPa (ECHA)
Flammability	flammable liquid in accordance with GHS criteria
Lower and upper explosion limit	not determined
Flash point	36 °C at 1.013 hPa (ECHA)





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artici	e number. 3335	
	Auto-ignition temperature	240 – 1.013 °C (ECHA)
	Decomposition temperature	not relevant
	pH (value)	not determined
	Kinematic viscosity	not determined
	Solubility(ies)	
	Water solubility	not determined
	Partition coefficient	
	Partition coefficient n-octanol/water (log value):	this information is not available
	Vapour pressure	not determined
	Density and/or relative density	
	Density	0,86 ^g / _{cm³} 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)
	Refractive index	1,465 – 1,475 (20 °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

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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.

10.6 Hazardous decomposition products Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Classification acc. to GHS

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 of the mixture

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
DL-a-Pinene	80-56-8	dermal	LD50	>2.000 ^{mg} / _{kg}	rat
DL-a-Pinene	80-56-8	oral	LD50	3.700 ^{mg} / _{kg}	rat
ß-Pinene	127-91-3	oral	LD50	4.700 ^{mg} / _{kg}	rat
β-Caryophyllene	87-44-5	oral	LD50	>5.000 ^{mg} / _{kg}	mouse
Terpinolene	586-62-9	oral	LD50	>2.000 ^{mg} / _{kg}	rat
Terpinolene	586-62-9	dermal	LD50	>2.000 ^{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

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 Not listed.

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.

Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time
DL-α-Pinene	80-56-8	LC50	0,303 ^{mg} / _l	fish	96 h
DL-α-Pinene	80-56-8	EC50	0,475 ^{mg} / _l	aquatic invertebrates	48 h
ß-Pinene	127-91-3	LC50	0,68 ^{mg} / _l	rainbow trout (Onco- rhynchus mykiss)	96 h
ß-Pinene	127-91-3	EC50	1,09 ^{mg} / _l	daphnia magna	48 h
ß-Pinene	127-91-3	ErC50	0,7 ^{mg} / _l	Pseudokirchneriella subcapitata	72 h
Camphene	79-92-5	LC50	0,72 ^{mg} /l	fish	96 h



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Aquatic toxicity (acute) of components of the mixture						
Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time	
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	
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	
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	
Myrcene	123-35-3	EC50	1,47 ^{mg} / _l	aquatic invertebrates	48 h	
Myrcene	123-35-3	EC50	0,31 ^{mg} / _l	algae	72 h	
Myrcene	123-35-3	ErC50	0,342 ^{mg} / _l	algae	72 h	

Aquatic toxicity (chronic) of components of the mixture

Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time
ß-Pinene	127-91-3	EC50	326 ^{mg} / _l	microorganisms	3 h
Camphene	79-92-5	EC50	>1.000 ^{mg} / _l	microorganisms	3 h
Terpinolene	586-62-9	EC50	69 ^{mg} / _l	microorganisms	3 h

Biodegradation

Data are not available.

12.2 Process of degradability

Degradabilit	Degradability of components of the mixture					
Name of substance	CAS No	Process	Degrada- tion rate	Time	Method	Source
DL-α-Pinene	80-56-8	oxygen deple- tion	68 %	28 d		ECHA
ß-Pinene	127-91-3	oxygen deple- tion	76 %	28 d		ECHA
β-Caryophyl- lene	87-44-5	oxygen deple- tion	10 %	28 d		ECHA
Terpinolene	586-62-9	oxygen deple- tion	81 %	28 d		ECHA
Myrcene	123-35-3	oxygen deple- tion	76 %	28 d		ECHA

12.3 Bioaccumulative potential

Data are not available.

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Bioaccumulative potentia	lioaccumulative potential of components of the mixture					
Name of substance	CAS No	BCF	Log KOW	BOD5/COD		
DL-a-Pinene	80-56-8		4,83			
Camphene	79-92-5		4,22 (pH value: 7,2, 37 °C)			
β-Caryophyllene	87-44-5		6,23 (pH value: 7, 25 °C)			
Terpinolene	586-62-9		4,47			
Myrcene	123-35-3		4,82 (pH value: ~6,5, 30 °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** Not listed.
- **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.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

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. Waste catalogue ordinance (Germany).

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.

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SEC	TION 14: Transport information	
14.1	UN number or ID number	
	ADRRID	UN 1272
	IMDG-Code	UN 1272
	ICAO-TI	UN 1272
14.2	UN proper shipping name	
	ADRRID	PINE OIL
	IMDG-Code	PINE OIL
	ICAO-TI	Pine oil
14.3	Transport hazard class(es)	
	ADRRID	3
	IMDG-Code	3
	ICAO-TI	3
14.4	Packing group	
	ADRRID	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.

14.8 Information for each of the UN Model Regulations

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information

Proper shipping name	PINE OIL
Particulars in the transport document	UN1272, PINE OIL, 3, III, (D/E), environmentally hazardous
Classification code	F1
Danger label(s)	3, "Fish and tree"
Environmental hazards	Yes (hazardous to the aquatic environment)
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
Transport category (TC)	3

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Two all reactivities and the (TDC)	
Tunnel restriction code (TRC)	D/E
Hazard identification No	30
Emergency Action Code	3Y
Regulations concerning the International (information	Carriage of Dangerous Goods by Rail (RID)Addition
Classification code	F1
Danger label(s)	3 Fish and tree
Environmental hazards	Yes Hazardous to water
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
Transport category (TC)	3
Hazard identification No	30
International Maritime Dangerous Goods (Code (IMDG) - Additional information
Proper shipping name	PINE OIL
Particulars in the shipper's declaration	UN1272, PINE OIL, 3, III, 36°C c.c., MARINE PO LUTANT
Marine pollutant	yes (P) (hazardous to the aquatic environment)
Danger label(s)	3, "Fish and tree"
Special provisions (SP)	-
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
EmS	F-E, S-E
Stowage category	A
International Civil Aviation Organization (I	CAO-IATA/DGR) - Additional information
Proper shipping name	Pine oil
Particulars in the shipper's declaration	UN1272, Pine oil, 3, III
Environmental hazards	Yes (hazardous to the aquatic environment)
Danger label(s)	3
Excepted quantities (EQ)	E1
Limited quantities (LQ)	10 L

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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)

Seveso Directive

2012/18/EU (Seveso III)					
Νο	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the ap- plication of lower and upper-tier re- quirements	Notes		
E2	environmental hazards (hazardous to the aquatic en- vironment, cat. 2)	200 500	57)		

Notation

57) Hazardous to the Aquatic Environment in category Chronic 2

Deco-Paint Directive

860 ⁹ /1		VOC content	100 % 860 ^g /l
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Industrial Emissions Directive (IED)

VOC content	100 %
VOC content	860 ^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

Regulation on persistent organic pollutants (POP)

not listed

National regulations(GB)

List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list not listed

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



Oil of silver fir needles , natural

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rictions according to GB REACH, Annex 17			
ngerous substances with restrictions (GB REACH, Annex 17)			
Name of substance	Name acc. to inventory	CAS No	No
Oil of silver fir needles	this product meets the criteria for classi- fication in accordance with Regulation No 1272/2008/EC		3
Oil of silver fir needles	flammable / pyrophoric		40

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
EU	ECSI	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

Legend

Legena	
AIIC	Australian Inventory of Industrial Chemicals
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
KECI	Korea Existing Chemicals 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

No Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Indication of changes (revised safety data sheet)

Alignment to regulation: Restructuring: section 9, section 14

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Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.1		Classification acc. to GHS: change in the listing (table)	yes
2.1		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.	yes
2.2	Labelling of packages where the contents do not exceed 125 ml: Signal word: Danger		yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.3	Other hazards: There is no additional information.	Other hazards	yes
2.3		Results of PBT and vPvB assessment: According to the results of its assessment, this substance is not a PBT or a vPvB.	yes

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de naviga- tion intérieures (European Agreement concerning the International Carriage of Dangerous Goods by In- land Waterways)
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concern- ing 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)
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 identi- fier of substances commercially available within the EU (European Union)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule

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



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Abbr.	Descriptions of used abbreviations
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
GB REACH	The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Na- tions
ΙΑΤΑ	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
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
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula- tions concerning the International carriage of Dangerous goods by Rail)
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). 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.