acc. to Safe Work Australia - Code of Practice

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#### Mint oil double rectified

article number: 6732 Version: GHS 2.0 en

Replaces version of: 2022-07-20

Version: (GHS 1)

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

#### **Product identifier** 1.1

Identification of the substance Mint oil double rectified

Article number 6732

90063-97-1 CAS number

#### 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 private purposes (household).

Food, drink and animal feedingstuffs.

#### 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

#### 1.4 **Emergency telephone number**

Name	Street	Postal code/city	Telephone	Website
NSW Poisons Information Centre Childrens Hospital	Hawkesbury Road	2145 West- mead, NSW	131126	

# **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

# Classification acc. to GHS

Section	Hazard class	Cat- egory	Hazard class and category	Hazard statement
2.6	Flammable liquid	4	Flam. Liq. 4	H227
3.10	Acute toxicity (oral)	4	Acute Tox. 4	H302
3.2	Skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	Serious eye damage/eye irritation	2	Eye Irrit. 2	H319
3.45	Skin sensitisation	1	Skin Sens. 1	H317

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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.

# 2.2 Label elements

# Labelling

Signal word Warning

# **Pictograms**

GHS07



# **Hazard statements**

H227	Combustible liquid
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation

# **Precautionary statements**

# **Precautionary statements - prevention**

P210	Keep away from heat/sparks/open flames/hot surfaces No smoking
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P280	Wear protective gloves

# **Precautionary statements - response**

P302+P352	IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
	lenses, if present and easy to do. Continue rinsing
P333+P313	If skin irritation or rash occurs: Get medical advice/attention
P337+P313	If eye irritation persists: Get medical advice/attention
P370+P378	In case of fire: Use sand, carbon dioxide or powder extinguisher for extinction

# **Precautionary statements - disposal**

P501 Dispose of contents/container to industrial combustion plant

# 2.3 Other hazards

This material is combustible, but will not ignite readily.

# 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%.

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

# 3.1 Substances

Name of substance Mint oil

CAS No 90063-97-1

# Impurities/additives/constituents:

Name of substance	Identifier	Wt%
(±) - Menthol	CAS No 89-78-1	50 – < 75
Menthone	CAS No 10458-14-7	5 – < 10
L-(-)-Limonene	CAS No 5989-54-8	1-<5
(-)-Carvone	CAS No 6485-40-1	1-<5
Acetic acid methyl ester	CAS No 79-20-9	1-<5
Isopulegol	CAS No 89-79-2	1-<5
DL-α-Pinene	CAS No 80-56-8	<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. In case of skin reactions, 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**

Rinse mouth with water (only if the person is conscious). Call a doctor.

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

Vomiting, Irritation, Allergic reactions, Aspiration hazard

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# 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 (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. 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).

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# 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.

# Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

# 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:

# **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

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Name of sub- stance	CAS No	End- point	Threshol d level	Protection goal, route of exposure	Used in	Exposure time			
(±) - Menthol	89-78-1	DNEL	66.28 mg/ m³	human, inhalat- ory	worker (industry)	acute - systemic effects			
(±) - Menthol	89-78-1	DNEL	1 mg/m³	human, inhalat- ory	worker (industry)	chronic - local ef- fects			
(±) - Menthol	89-78-1	DNEL	1 mg/m³	human, inhalat- ory	worker (industry)	acute - local ef- fects			
(±) - Menthol	89-78-1	DNEL	9.4 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects			
(±) - Menthol	89-78-1	DNEL	46.4 mg/ m³	human, inhalat- ory	worker (industry)	chronic - systemic effects			
(±) - Menthol	89-78-1	DNEL	13.15 mg/ kg bw/day	human, dermal	worker (industry)	chronic - systemic effects			
Acetic acid methyl ester	79-20-9	DNEL	300 mg/m <sup>3</sup>	human, inhalat- ory	worker (industry)	chronic - systemic effects			
Acetic acid methyl ester	79-20-9	DNEL	3,777 mg/ m³	human, inhalat- ory	worker (industry)	acute - systemic effects			
Acetic acid methyl ester	79-20-9	DNEL	620 mg/m <sup>3</sup>	human, inhalat- ory	worker (industry)	chronic - local ef- fects			
Acetic acid methyl ester	79-20-9	DNEL	43 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects			
L-(-)-Limonene	5989-54-8	DNEL	33.3 mg/ m³	human, inhalat- ory	worker (industry)	chronic - systemic effects			
L-(-)-Limonene	5989-54-8	DNEL	222 μg/ cm²	human, dermal	worker (industry)	acute - local ef- fects			
DL-α-Pinene	80-56-8	DNEL	3.8 mg/m <sup>3</sup>	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			

# **Relevant PNECs of components**

Name of sub- stance	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time
(±) - Menthol	89-78-1	PNEC	0.016 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	freshwater	short-term (single instance)
(±) - Menthol	89-78-1	PNEC	0.002 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	marine water	short-term (single instance)
(±) - Menthol	89-78-1	PNEC	3.06 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)
(±) - Menthol	89-78-1	PNEC	0.201 <sup>mg</sup> / kg	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)
(±) - Menthol	89-78-1	PNEC	0.02 <sup>mg</sup> / <sub>kg</sub>	aquatic organ- isms	marine sediment	short-term (single instance)
(±) - Menthol	89-78-1	PNEC	0.031 <sup>mg</sup> / kg	terrestrial organ- isms	soil	short-term (single instance)

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# Relevant PNECs of components

	_					
Name of sub- stance	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time
Acetic acid methyl ester	79-20-9	PNEC	0.12 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	freshwater	short-term (single instance)
Acetic acid methyl ester	79-20-9	PNEC	0.012 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	marine water	short-term (single instance)
Acetic acid methyl ester	79-20-9	PNEC	600 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)
Acetic acid methyl ester	79-20-9	PNEC	0.128 <sup>mg</sup> / kg	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)
Acetic acid methyl ester	79-20-9	PNEC	0.013 <sup>mg</sup> / kg	aquatic organ- isms	marine sediment	short-term (single instance)
Acetic acid methyl ester	79-20-9	PNEC	0.042 <sup>mg</sup> / kg	terrestrial organ- isms	soil	short-term (single instance)
L-(-)-Limonene	5989-54-8	PNEC	5.4 <sup>µg</sup> / <sub>l</sub>	aquatic organ- isms	freshwater	short-term (single instance)
L-(-)-Limonene	5989-54-8	PNEC	0.54 <sup>µg</sup> / <sub>l</sub>	aquatic organ- isms	marine water	short-term (single instance)
L-(-)-Limonene	5989-54-8	PNEC	0.2 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)
L-(-)-Limonene	5989-54-8	PNEC	1.322 <sup>mg</sup> / kg	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)
L-(-)-Limonene	5989-54-8	PNEC	0.132 <sup>mg</sup> / kg	aquatic organ- isms	marine sediment	short-term (single instance)
L-(-)-Limonene	5989-54-8	PNEC	0.262 <sup>mg</sup> / kg	terrestrial organ- isms	soil	short-term (single instance)
DL-α-Pinene	80-56-8	PNEC	0.606 <sup>µg</sup> / <sub>I</sub>	aquatic organ- isms	freshwater	short-term (single instance)
DL-α-Pinene	80-56-8	PNEC	0.061 <sup>µg</sup> / <sub>l</sub>	aquatic organ- isms	marine water	short-term (single instance)
DL-α-Pinene	80-56-8	PNEC	0.2 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)
DL-α-Pinene	80-56-8	PNEC	157 <sup>µg</sup> / <sub>kg</sub>	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)
DL-α-Pinene	80-56-8	PNEC	15.7 <sup>µg</sup> / <sub>kg</sub>	aquatic organ- isms	marine sediment	short-term (single instance)
DL-α-Pinene	80-56-8	PNEC	31.7 <sup>µg</sup> / <sub>kg</sub>	terrestrial organ- isms	soil	short-term (single instance)

# 8.2 Exposure controls

Individual protection measures (personal protective equipment)

Eye/face protection



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Use safety goggle with side protection.

#### 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 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

>0,11 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 - colourless - light yellow

Odour characteristic

Melting point/freezing point <-25 °C at 1,013 hPa (ECHA)

Boiling point or initial boiling point and boiling

range

102 °C at 1 bar (ECHA)

Flammability flammable liquid in accordance with GHS criteria

Lower and upper explosion limit not determined

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Flash point 68.7 °C at 1 bar (ECHA)

Auto-ignition temperature 285 °C at 1,014 hPa (ECHA)

Decomposition temperature not relevant

pH (value) not determined

Kinematic viscosity 5.54 mm²/s at 20 °C

Dynamic viscosity 4.994 cP at 20 °C

Solubility(ies)

Water solubility  $\sim 0.9432 \, ^{\rm g}/_{\rm l}$  at 20 °C (ECHA)

Partition coefficient

Partition coefficient n-octanol/water (log value): 2.73 – 6.99 (pH value: ~7, 25 °C) (ECHA)

Vapour pressure 50.8 Pa at 25 °C

Density and/or relative density

Density  $\sim 0.9015 \, {\rm g/_{cm^3}}$  at 20 °C (ECHA)

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:

Refractive index 1.46

# **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. 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**

Harmful if swallowed.

Acute toxicity					
Exposure route	Endpoint	Value	Species	Method	Source
dermal	LD50	>5,000 <sup>mg</sup> / <sub>kg</sub>	rabbit		
oral	LD50	4,450 <sup>mg</sup> / <sub>kg</sub>	rat		

te toxicity of components								
Name of substance	CAS No	Exposure route	Endpoint	Value	Species			
(±) - Menthol	89-78-1	oral	LD50	3,180 <sup>mg</sup> / <sub>kg</sub>	rat			
(±) - Menthol	89-78-1	inhalation: dust/mist	LC50	5,289 <sup>mg</sup> / <sub>m³</sub> / 4h	rat			
Acetic acid methyl ester	79-20-9	oral	LD50	6,482 <sup>mg</sup> / <sub>kg</sub>	rat			
Acetic acid methyl ester	79-20-9	dermal	LD50	>2,000 <sup>mg</sup> / <sub>kg</sub>	rat			
Isopulegol	89-79-2	oral	LD50	936 <sup>mg</sup> / <sub>kg</sub>	rat			
(-)-Carvone	6485-40-1	oral	LD50	5,400 <sup>mg</sup> / <sub>kg</sub>	rat			
(-)-Carvone	6485-40-1	dermal	LD50	>2,000 <sup>mg</sup> / <sub>kg</sub>	rat			
DL-α-Pinene	80-56-8	dermal	LD50	>2,000 <sup>mg</sup> / <sub>kg</sub>	rat			
DL-α-Pinene	80-56-8	oral	LD50	3,700 <sup>mg</sup> / <sub>kg</sub>	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.

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# Carcinogenicity

Shall not be classified as carcinogenic.

# **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**

Shall not be classified as presenting an aspiration hazard.

# Symptoms related to the physical, chemical and toxicological characteristics

#### If swallowed

abdominal pain, aspiration hazard

# • If in eyes

Causes serious eye irritation

#### If inhaled

cough, pain, choking, and breathing difficulties

# • 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%.

# **SECTION 12: Ecological information**

# 12.1 Toxicity

Toxic to aquatic life with long lasting effects.

# **Aquatic toxicity (acute)**

Endpoint	Value	Species	Source	Exposure time
LC50	3.01 <sup>mg</sup> / <sub>l</sub>	fish	ECHA	96 h
EC50	2.43 <sup>mg</sup> / <sub>l</sub>	aquatic invertebrates	ECHA	48 h

# Aquatic toxicity (acute) of components

Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time
(±) - Menthol	89-78-1	LC50	22.3 <sup>mg</sup> / <sub>l</sub>	fish	96 h
(±) - Menthol	89-78-1	EC50	26.6 <sup>mg</sup> / <sub>l</sub>	aquatic invertebrates	48 h

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# Aquatic toxicity (acute) of components

Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time
(±) - Menthol	89-78-1	ErC50	16.2 <sup>mg</sup> / <sub>l</sub>	algae	72 h
Acetic acid methyl es- ter	79-20-9	LC50	≤350 <sup>mg</sup> / <sub>l</sub>	fish	96 h
Acetic acid methyl es- ter	79-20-9	EC50	1,027 <sup>mg</sup> / <sub>l</sub>	aquatic invertebrates	48 h
Acetic acid methyl es- ter	79-20-9	ErC50	>120 <sup>mg</sup> / <sub>l</sub>	algae	72 h
Isopulegol	89-79-2	EC50	53.2 <sup>mg</sup> / <sub>l</sub>	aquatic invertebrates	48 h
Isopulegol	89-79-2	ErC50	50.6 <sup>mg</sup> / <sub>l</sub>	algae	72 h
(-)-Carvone	6485-40-1	LC50	6.1 <sup>mg</sup> / <sub>l</sub>	fish	96 h
(-)-Carvone	6485-40-1	EC50	38 <sup>mg</sup> / <sub>l</sub>	aquatic invertebrates	48 h
(-)-Carvone	6485-40-1	ErC50	19 <sup>mg</sup> / <sub>l</sub>	algae	72 h
DL-α-Pinene	80-56-8	LC50	0.303 <sup>mg</sup> / <sub>l</sub>	fish	96 h
DL-α-Pinene	80-56-8	EC50	0.475 <sup>mg</sup> / <sub>l</sub>	aquatic invertebrates	48 h

# Aquatic toxicity (chronic) of components

Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time
(±) - Menthol	89-78-1	EC50	306 <sup>mg</sup> / <sub>l</sub>	microorganisms	3 h
Acetic acid methyl es- ter	79-20-9	EC50	6,000 <sup>mg</sup> / <sub>l</sub>	microorganisms	16 h
Isopulegol	89-79-2	EC50	>1,000 <sup>mg</sup> / <sub>l</sub>	microorganisms	180 min

# 12.2 Persistence and degradability

# **Biodegradation**

The substance is readily biodegradable.

# **Degradability of components**

Name of substance	CAS No	Process	Degrada- tion rate	Time	Method	Source
Acetic acid methyl ester	79-20-9	biotic/abiotic	>70 %	19 d	geschlossene Flasche	
Acetic acid methyl ester	79-20-9	oxygen deple- tion	1 %	0 d		ECHA
Isopulegol	89-79-2	carbon dioxide generation	<10 %	7 d		ECHA
L-(-)-Limonene	5989-54-8	oxygen deple- tion	85 %	28 d		ECHA
(-)-Carvone	6485-40-1	oxygen deple- tion	90 %	28 d		ECHA

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# **Degradability of components**

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

# 12.3 Bioaccumulative potential

The substance fulfils the very bioaccumulative criterion.

n-octanol/water (log KOW)	2.73 – 6.99 (pH value: ~7, 25 °C) (ECHA)
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# **Bioaccumulative potential of components**

Name of substance	CAS No	BCF	Log KOW	BOD5/COD
(±) - Menthol	89-78-1	≥0.5 - ≤15	3.4 (pH value: 7.2, 37 °C)	
Menthone	10458-14-7		3.05	
Acetic acid methyl ester	79-20-9		0.18	
Isopulegol	89-79-2		2.4 (pH value: 6.2, 23 °C)	
L-(-)-Limonene	5989-54-8	864.8	4.38 (pH value: 7.2, 37 °C)	
(-)-Carvone	6485-40-1		2.74	
DL-α-Pinene	80-56-8		4.83	

# 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.

# Waste treatment of containers/packagings

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

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#### 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

UN 3082
IMDG-Code UN 3082
ICAO-TI UN 3082

14.2 UN proper shipping name

UN RTDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LI-

QUID, N.O.S.

IMDG-Code ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LI-

QUID, N.O.S.

ICAO-TI Environmentally hazardous substance, liquid,

n.o.s.

Technical name Mint oil

14.3 Transport hazard class(es)

UN RTDG 9
IMDG-Code 9
ICAO-TI 9

14.4 Packing group

UN RTDG III
IMDG-Code III
ICAO-TI III

**14.5 Environmental hazards** hazardous to the aquatic environment

# 14.6 Special precautions for user

There is no additional information.

# 14.7 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 informationNational regulationsAdditional information(UN RTDG)

UN number 3082 Class 9

**Environmental hazards**Yes
Hazardous to the aquatic environment

Packing group III
Danger label(s) 9

Fish and tree

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**Special provisions (SP)** 274, 331, 335, 375

UN RTDG

Excepted quantities (EQ)

ŪN RTDG

Limited quantities (LQ) 5 l

UN RTDG

Emergency Action Code 32

International Maritime Dangerous Goods Code (IMDG) - Additional information

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LI-

QUID, N.O.S.

Particulars in the shipper's declaration UN3082, ENVIRONMENTALLY HAZARDOUS SUB-

STANCE, LIQUID, N.O.S., (Mint oil), 9, III

Marine pollutant yes (hazardous to the aquatic environment), (Mint oil)

Danger label(s) 9, "Fish and tree"

Special provisions (SP) 274, 335, 969

Excepted quantities (EQ) E1
Limited quantities (LQ) 5 L

EmS F-A, S-F

Stowage category A

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

Proper shipping name Environmentally hazardous substance, liquid,

n.o.s.

Particulars in the shipper's declaration UN3082, Environmentally hazardous substance,

liquid, n.o.s., (Mint oil), 9, III

Environmental hazards yes (hazardous to the aquatic environment)

Danger label(s) 9, "Fish and tree"

**♠** 

Special provisions (SP) A97, A158, A197, A215

Excepted quantities (EQ) E1

Limited quantities (LQ) 30 kg

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# **SECTION 15: Regulatory information**

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

There is no additional information.

# National regulations(Australia)

# Australian Inventory of Chemical Substances(AICS)

Substance is 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
CN	IECSC	substance is listed
EU	ECSI	substance is listed
EU	REACH Reg.	substance is listed
NZ	NZIoC	substance is listed
PH	PICCS	substance is listed
TR	CICR	substance is listed
TW	TCSI	substance is listed
VN	NCI	substance is listed

# Legend

AIIC Australian Inventory of Industrial Chemicals
CICR Chemical Inventory and Control Regulation
ECSI EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC Inventory of Existing Chemical Substances Produced or Imported in China
NCI National Chemical Inventory
NZIOC New Zealand Inventory of Chemicals
PICCS Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.
TCSI Taiwan Chemical Substance Inventory

# 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)

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.3		Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.	yes
14.8		Emergency Action Code: 3Z	yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
15.1		National inventories: change in the listing (table)	yes

# **Abbreviations and acronyms**

Abbr.	Descriptions of used abbreviations
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
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
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
UN RTDG	UN Recommendations on the Transport of Dangerous Good
vPvB	Very Persistent and very Bioaccumulative
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# Key literature references and sources for data

Safe Work Australia's Code of Practice for Labelling of Workplace Hazardous Chemicals (under WHS Regulations).

UN Recommendations on the Transport of Dangerous Good. 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
H227	Combustible liquid.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

#### **Disclaimer**

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

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