acc. to Safe Work Australia - Code of Practice



#### Karl Fischer ROTI®Hydroquant coulo Oil for KF titration, coulometric

article number: 9960 date of compilation: 2016-09-02 Version: GHS 2.0 en Revision: 2022-01-25

Replaces version of: 2016-09-02

Version: (GHS 1)

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

#### **Product identifier** 1.1

Identification of the substance Karl Fischer ROTI®Hydroquant coulo Oil for KF

titration, coulometric

9960 Article number

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

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).

#### 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:

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

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

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

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

#### Classification of the substance or mixture 2.1

#### Classification acc. to GHS

Section	Hazard class	Cat- egory	Hazard class and category	Hazard statement
2.6	Flammable liquid	2	Flam. Liq. 2	H225
3.1I	Acute toxicity (inhal.)	4	Acute Tox. 4	H332
3.2	Skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	Serious eye damage/eye irritation	1	Eye Dam. 1	H318
3.6	Carcinogenicity	2	Carc. 2	H351

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Section	Hazard class	Cat- egory	Hazard class and category	Hazard statement
3.7	Reproductive toxicity	2	Repr. 2	H361d
3.8	Specific target organ toxicity - single exposure	1	STOT SE 1	H370
3.8R	Specific target organ toxicity - single exposure (respirat- ory tract irritation)	3	STOT SE 3	H335
3.9	Specific target organ toxicity - repeated exposure	1	STOT RE 1	H372
3.10	Aspiration hazard	1	Asp. Tox. 1	H304

For full text of abbreviations: see SECTION 16

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

Delayed or immediate effects can be expected after short or long-term exposure. The product is combustible and can be ignited by potential ignition sources.

#### 2.2 Label elements

#### Labelling

Signal word Danger

#### **Pictograms**

GHS02, GHS05, GHS07, GHS08









#### **Hazard statements**

H225	Highly flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H318	Causes serious eye damage
H332	Harmful if inhaled
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H361d	Suspected of damaging the unborn child
H370	Causes damage to organs (eye)
H372	Causes damage to organs through prolonged or repeated exposure

#### **Precautionary statements**

#### **Precautionary statements - prevention**

P210	Keep away from heat/sparks/open flames/hot surfaces No smoking
P260	Do not breathe dust/fume/gas/mist/vapours/spray

#### **Precautionary statements - response**

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
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

P331 Do NOT induce vomiting

P370+P378 In case of fire: Use sand, carbon dioxide or powder extinguisher for extinction

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#### Precautionary statements - storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed

P403+P235 Store in a well-ventilated place. Keep cool

For professional users only

Hazardous ingredients for labelling: Trichloromethane, Methanol, Xylene (isomers),

Sulphur dioxide

#### 2.3 Other hazards

#### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

# SECTION 3: Composition/information on ingredients

#### 3.1 **Substances**

not relevant (mixture)

#### 3.2 **Mixtures**

#### **Description of the mixture**

Name of sub- stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
Methanol	CAS No 67-56-1	25 - 50	Flam. Liq. 2 / H225 Acute Tox. 3 / H301 Acute Tox. 3 / H311 Acute Tox. 3 / H331 STOT SE 1 / H370		
Xylene (isomers)	CAS No 1330-20-7	25 - 50	Flam. Liq. 3 / H226 Acute Tox. 4 / H312 Acute Tox. 4 / H332 Skin Irrit. 2 / H315 Eye Irrit. 2A / H319 STOT SE 3 / H335 STOT RE 2 / H373 Asp. Tox. 1 / H304		C(a)
Trichloromethane	CAS No 67-66-3	25 - 50	Acute Tox. 4 / H302 Acute Tox. 3 / H331 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Carc. 2 / H351 Repr. 2 / H361d STOT RE 1 / H372		IARC: 2B
Sulphur dioxide	CAS No 7446-09-5	1 - 5	Press. Gas C / H280 Acute Tox. 3 / H331 Skin Corr. 1B / H314 Eye Dam. 1 / H318		5(a) U

#### Notes

5(a): The classification of the gaseous mixture is based on the concentration of the substance as volume per-volume per-

C(a): IARC: IARC group 2B: possibly carcinogenic to humans (International Agency for Research on Cancer)

2B: U:

When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case.

For full text of abbreviations: see SECTION 16

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#### **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 irritation, consult a physician.

#### Following eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

#### Following ingestion

Call a physician immediately. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Observe aspiration hazard if vomiting occurs.

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

Aspiration hazard, Vomiting, Risk of blindness, Risk of serious damage to eyes, Irritation, Cough, Dyspnoea

### 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.

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#### **Hazardous combustion products**

In case of fire may be liberated: Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Hydrogen chloride (HCl), Hydrogen halides (HX), 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

Use personal protective equipment as required. 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. 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. Avoid exposure.

#### 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. Due to danger of explosion, prevent leakage

of vapours into cellars, flues and ditches.

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#### 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.

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

Keep container tightly closed in a cool place.

#### **Incompatible substances or mixtures**

Observe hints for combined storage.

#### Consideration of other advice:

Ground/bond container and receiving equipment.

#### **Ventilation requirements**

Keep any substance that emits harmful vapours or gases in a place that allows these to be permanently extracted. 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)**

Cou ntr y	Name of agent	CAS No	Identi- fier	TW A [pp m]	TWA [mg/ m³]	STE L [pp m]	STEL [mg/ m³]	Ceil ing- C [pp m]	Ceil- ing-C [mg/ m³]	Nota- tion	Source
AU	xylene, mixture of isomers	1330-20- 7	WES	80	350	150	655				WES
AU	methyl alcohol (methanol)	67-56-1	WES	200	262	250	328				WES
AU	chloroform (tri- chloromethane)	67-66-3	WES	2	10						WES
AU	sulfur dioxide	7446-09- 5	WES	2	5.2	5	13				WES
AU	iodine	7553-56- 2	WES					0.1	1		WES

**Notation** Ceiling-C

TWA

Ceiling value is a limit value above which exposure should not occur Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified) Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 STFI

hours time-weighted average (unless otherwise specified)

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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			
Methanol	67-56-1	DNEL	130 mg/m <sup>3</sup>	human, inhalat- ory	worker (industry)	chronic - systemic effects			
Methanol	67-56-1	DNEL	130 mg/m <sup>3</sup>	human, inhalat- ory	worker (industry)	acute - systemic effects			
Methanol	67-56-1	DNEL	130 mg/m³	human, inhalat- ory	worker (industry)	chronic - local ef- fects			
Methanol	67-56-1	DNEL	130 mg/m³	human, inhalat- ory	worker (industry)	acute - local ef- fects			
Methanol	67-56-1	DNEL	20 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects			
Methanol	67-56-1	DNEL	20 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects			
Xylene (isomers)	1330-20-7	DNEL	221 mg/m³	human, inhalat- ory	worker (industry)	chronic - systemic effects			
Xylene (isomers)	1330-20-7	DNEL	442 mg/m³	human, inhalat- ory	worker (industry)	acute - systemic effects			
Xylene (isomers)	1330-20-7	DNEL	221 mg/m³	human, inhalat- ory	worker (industry)	chronic - local ef- fects			
Xylene (isomers)	1330-20-7	DNEL	442 mg/m³	human, inhalat- ory	worker (industry)	acute - local ef- fects			
Xylene (isomers)	1330-20-7	DNEL	212 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects			
Trichloromethane	67-66-3	DNEL	2.5 mg/m <sup>3</sup>	human, inhalat- ory	worker (industry)	chronic - systemic effects			
Trichloromethane	67-66-3	DNEL	333 mg/m³	human, inhalat- ory	worker (industry)	acute - systemic effects			
Trichloromethane	67-66-3	DNEL	2.5 mg/m <sup>3</sup>	human, inhalat- ory	worker (industry)	chronic - local ef- fects			
Trichloromethane	67-66-3	DNEL	0.94 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects			
Sulphur dioxide	7446-09-5	DNEL	1.3 mg/m <sup>3</sup>	human, inhalat- ory	worker (industry)	chronic - local ef- fects			
Sulphur dioxide	7446-09-5	DNEL	2.7 mg/m <sup>3</sup>	human, inhalat- ory	worker (industry)	acute - local ef- fects			

Relevant PNECs	Relevant PNECs of components of the mixture										
Name of sub- stance	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time					
Methanol	67-56-1	PNEC	20.8 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	freshwater	short-term (single instance)					
Methanol	67-56-1	PNEC	2.08 <sup>mg</sup> / <sub>l</sub> aquatic organ- isms marine wat		marine water	short-term (single instance)					
Methanol	67-56-1	PNEC	100 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)					

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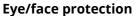
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Relevant PNECs	of compone	ents of th	e mixture			
Name of sub	CAS No	End	Throshol	Organism	Environmental	Evnosuro

Name of sub- stance	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time
Methanol	67-56-1	PNEC	77 <sup>mg</sup> / <sub>kg</sub>	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)
Methanol	67-56-1	PNEC	7.7 <sup>mg</sup> / <sub>kg</sub>	aquatic organ- isms	marine sediment	short-term (single instance)
Methanol	67-56-1	PNEC	100 <sup>mg</sup> / <sub>kg</sub>	terrestrial organ- isms	soil	short-term (single instance)
Xylene (isomers)	1330-20-7	PNEC	0.327 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	freshwater	short-term (single instance)
Xylene (isomers)	1330-20-7	PNEC	0.327 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	marine water	short-term (single instance)
Xylene (isomers)	1330-20-7	PNEC	6.58 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)
Xylene (isomers)	1330-20-7	PNEC	12.46 <sup>mg</sup> /	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)
Xylene (isomers)	1330-20-7	PNEC	12.46 <sup>mg</sup> / kg	aquatic organ- isms	marine sediment	short-term (single instance)
Xylene (isomers)	1330-20-7	PNEC	2.31 <sup>mg</sup> / <sub>kg</sub>	terrestrial organ- isms	soil	short-term (single instance)
Trichloromethane	67-66-3	PNEC	0.146 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	freshwater	short-term (single instance)
Trichloromethane	67-66-3	PNEC	0.015 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	marine water	short-term (single instance)
Trichloromethane	67-66-3	PNEC	0.048 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)
Trichloromethane	67-66-3	PNEC	0.45 <sup>mg</sup> / <sub>kg</sub>	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)
Trichloromethane	67-66-3	PNEC	0.09 <sup>mg</sup> / <sub>kg</sub>	aquatic organ- isms	marine sediment	short-term (single instance)
Trichloromethane	67-66-3	PNEC	0.56 <sup>mg</sup> / <sub>kg</sub>	terrestrial organ- isms	soil	short-term (single instance)

#### 8.2 **Exposure controls**

Individual protection measures (personal protective equipment)







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

Butyl caoutchouc (butyl rubber)

#### material thickness

0.7mm

#### 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.

Flame-retardant protective clothing.

#### **Respiratory protection**





Respiratory protection necessary at: Aerosol or mist formation. Type: AX (gas filters and combined filters against low-boiling point organic compounds, 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 colourless Odour characteristic Melting point/freezing point not determined

Boiling point or initial boiling point and boiling range

58 °C at 1,013 hPa

Flammability flammable liquid in accordance with GHS criteria

Lower and upper explosion limit 40 g/m³ (LEL) - 340 g/m³ (UEL) / 1.1 vol% (LEL) - 44 vol% (ÙEL)

8°C Flash point

455 °C (auto-ignition temperature (liquids and Auto-ignition temperature

gases))

not relevant Decomposition temperature

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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 210 hPa at 20 °C

Density and/or relative density

Density  $0.98 \, ^{\rm g}/_{\rm cm^3}$  at 20  $^{\circ}{\rm C}$ 

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:

Other safety characteristics: There is no additional information.

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

#### 10.1 Reactivity

The mixture contains reactive substance(s). Risk of ignition. Vapours may form explosive mixtures with air.

There is no additional information.

#### If heated

Risk of ignition.

#### 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 toxicological effects

Test data are not available for the complete mixture.

#### **Classification procedure**

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification acc. to GHS

#### **Acute toxicity**

Harmful if inhaled.

#### Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
Xylene (isomers)	1330-20-7	dermal	1,100 <sup>mg</sup> / <sub>kg</sub>
Trichloromethane	67-66-3	oral	908 <sup>mg</sup> / <sub>kg</sub>
Trichloromethane	67-66-3	inhalation: vapour	3 <sup>mg</sup> / <sub>l</sub> /4h
Sulphur dioxide	7446-09-5	inhalation: gas	700 <sup>ppmV</sup> / <sub>4h</sub>

#### Acute toxicity of components of the mixture

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Methanol	67-56-1	inhalation: va- pour	LC50	131 <sup>mg</sup> / <sub>l</sub> /4h	rat
Methanol	67-56-1	oral	LD50	5,628 <sup>mg</sup> / <sub>kg</sub>	rat
Methanol	67-56-1	oral	LDLo	143 <sup>mg</sup> / <sub>kg</sub>	human
Methanol	67-56-1	dermal	LD50	15,800 <sup>mg</sup> / <sub>kg</sub>	rabbit
Xylene (isomers)	1330-20-7	inhalation: va- pour	LC50	29 <sup>mg</sup> / <sub>l</sub> /4h	rat
Xylene (isomers)	1330-20-7	oral	LD50	3,523 <sup>mg</sup> / <sub>kg</sub>	rat
Trichloromethane	67-66-3	oral	LD50	908 <sup>mg</sup> / <sub>kg</sub>	rat

#### Skin corrosion/irritation

Causes skin irritation.

### Serious eye damage/eye irritation

Causes serious eye damage.

### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

#### **Germ cell mutagenicity**

Shall not be classified as germ cell mutagenic.

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### Carcinogenicity

Suspected of causing cancer.

#### **Reproductive toxicity**

Suspected of damaging the unborn child.

#### Specific target organ toxicity - single exposure

Causes damage to organs (eye). May cause respiratory irritation.

Hazard category	Target organ	Exposure route
1	eye	if exposed

#### Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Hazard category	Target organ	Exposure route
2	kidney	if exposed
2	liver	if exposed
2	central nervous system	if exposed

#### **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 damage, risk of blindness

If inhaled

Irritation to respiratory tract, cough, Dyspnoea

• If on skin

causes skin irritation

Other information

none

#### 11.2 Endocrine disrupting properties

None of the ingredients are listed.

# **SECTION 12: Ecological information**

### 12.1 Toxicity

Toxic to aquatic life.

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### Aquatic toxicity (acute) of components of the mixture

Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time	
Methanol	67-56-1	LC50	15,400 <sup>mg</sup> / <sub>l</sub>	fish	96 h	
Methanol	67-56-1	ErC50	22,000 <sup>mg</sup> / <sub>l</sub>	algae	96 h	
Xylene (isomers)	1330-20-7	LC50	2.6 <sup>mg</sup> / <sub>l</sub>	rainbow trout	96 h	
Xylene (isomers)	1330-20-7	ErC50	4.7 <sup>mg</sup> / <sub>l</sub>	algae	72 h	
Trichloromethane	67-66-3	EC50	152.5 <sup>mg</sup> / <sub>l</sub>	aquatic invertebrates	48 h	
Trichloromethane	67-66-3	ErC50	13.3 <sup>mg</sup> / <sub>I</sub>	algae	72 h	

### Aquatic toxicity (chronic) of components of the mixture

Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time
Xylene (isomers)	1330-20-7	EC50	2.2 <sup>mg</sup> / <sub>l</sub>	algae	73 h
Trichloromethane	67-66-3	EC50	0.48 <sup>mg</sup> / <sub>l</sub>	microorganisms	24 h

#### **Biodegradation**

Data are not available.

### 12.2 Process of degradability

### Degradability of components of the mixture

Name of substance	CAS No	Process	Degrada- tion rate	Time	Method	Source
Methanol	67-56-1	biotic/abiotic	99 %	30 d		
Methanol	67-56-1	oxygen deple- tion	69 %	5 d		ECHA
Xylene (iso- mers)	1330-20-7	oxygen deple- tion	98 %	28 d		ECHA
Trichlorometh- ane	67-66-3	biotic/abiotic	0 %	14 d		

### 12.3 Bioaccumulative potential

Data are not available.

#### Bioaccumulative potential of components of the mixture

Name of substance	CAS No	BCF	Log KOW	BOD5/COD
Methanol	67-56-1		-0.77	
Xylene (isomers)	1330-20-7	>5.5 - <12.2	3.15 (pH value: 7, 20 °C)	
Trichloromethane	67-66-3		1.97 (25 °C)	

#### 12.4 Mobility in soil

Data are not available.

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#### 12.5 Results of PBT and vPvB assessment

Data are not available.

#### 12.6 Endocrine disrupting properties

None of the ingredients are 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.

#### Waste treatment of containers/packagings

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

#### Relevant provisions relating to waste(Basel Convention)

#### Properties of waste which render it hazardous

**H3** Flammable liquids

**H11** Toxic (Delayed or chronic)

#### 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.

# **SECTION 14: Transport information**

#### 14.1 UN number

UN RTDG UN 3286

IMDG-Code UN 3286 ICAO-TI UN 3286

14.2 UN proper shipping name

**UN RTDG** FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.

IMDG-Code FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.

ICAO-TI Flammable liquid, toxic, corrosive, n.o.s.

Technical name (hazardous ingredients) Methanol, Imidazole

14.3 Transport hazard class(es)

UN RTDG 3 (6.

(6.1) (8)

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**IMDG-Code** 3 (6.1)

(8)

ICAO-TI 3 (6.1)

(8)

14.4 Packing group

**UN RTDG** II **IMDG-Code** II ICAO-TI II

14.5 Environmental hazards non-environmentally hazardous acc. to the dan-

gerous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

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** 3286 Class 3

Subsidiary risk(s) 6.1+8

**Packing group** Π

Danger label(s) 3+6.1+8

**Special provisions (SP)** 274

**UN RTDG** 

**Excepted quantities (EQ)** 

**UN RTDG** 

Limited quantities (LQ) UN RTDG

International Maritime Dangerous Goods Code (IMDG) - Additional information

Proper shipping name FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.

UN3286, FLAMMABLE LIQUID, TOXIC, CORROS-Particulars in the shipper's declaration

IVE, N.O.S., (contains: Methanol, Imidazole), 3 (6.1+8), II, 8°C c.c.

Marine pollutant

Danger label(s) 3+6.1+8

274 Special provisions (SP)

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Excepted quantities (EQ) E2 Limited quantities (LQ) 1 L **EmS** F-E, S-C

Stowage category

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

Flammable liquid, toxic, corrosive, n.o.s. Proper shipping name

UN3286, Flammable liquid, toxic, corrosive, n.o.s., (contains: Methanol, Imidazole), 3 (6.1+8), II Particulars in the shipper's declaration

Danger label(s) 3+6.1+8







Excepted quantities (EQ) E2 0,5 L Limited quantities (LQ)

### **SECTION 15: Regulatory information**

#### 15.1 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)**

All ingredients are listed or exempt from listing.

#### 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	AICS	all ingredients are listed
CA	DSL	all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	all ingredients are listed
EU	REACH Reg.	all ingredients are listed
JP	CSCL-ENCS	not all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	all ingredients are listed

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Country	Inventory	Status
US	TSCA	all ingredients are listed

Legend

Australian Inventory of Chemical Substances Chemical Inventory and Control Regulation List of Existing and New Chemical Substances (CSCL-ENCS) AICS CICR CSCL-ENCS

DSL ECSI Domestic Substances List (DSL)

Domestic Substances List (DSL)
ECSI EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC Inventory of Existing Chemical Substances Produced or Imported in China
INSQ National Inventory of Chemical Substances
KECI Korea Existing Chemicals Inventory
NZIOC New Zealand Inventory of Chemicals
PICCS Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.
REACH registered substances
TCSI Tajwan Chemical Substances Inventory

TCSI Taiwan Chemical Substance Inventory **TSCA Toxic Substance Control Act** 

### 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

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

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

Alignment to regulation: Globally Harmonized System of Classification and Labelling of Chemicals ("Purple book").

Restructuring: section 9, section 14

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	Remarks: For full text of Hazard- and EU Hazard-state- ments: see SECTION 16.		yes
2.1		The most important adverse physicochemical, human health and environmental effects: Delayed or immediate effects can be expected after short or long-term exposure. The product is combustible and can be ignited by potential ignition sources.	yes
2.2		Pictograms: change in the listing (table)	yes
2.2		Hazard statements: change in the listing (table)	yes
2.2		Precautionary statements - prevention: change in the listing (table)	yes
2.2		Precautionary statements - response: change in the listing (table)	yes
2.2	Hazardous ingredients for labelling: Xylene (isomers), Trichloromethane	Hazardous ingredients for labelling: Trichloromethane, Methanol, Xylene (isomers), Sulphur dioxide	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

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Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
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	contains: Xylene (isomers), Trichloromethane		yes
2.3	Other hazards: There is no additional information.	Other hazards	yes
2.3		Results of PBT and vPvB assessment: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.	yes

#### **Abbreviations and acronyms**

Abbr.	Descriptions of used abbreviations
Acute Tox.	Acute toxicity
Asp. Tox.	Aspiration hazard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substance
Ceiling-C	Ceiling value
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 causin 50 % changes in response (e.g. on growth) during a specified time interval
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
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United N tions
IARC	International Agency for Research on Cancer

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Abbr.	Descriptions of used abbreviations
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
LEL	Lower explosion limit (LEL)
log KOW	n-Octanol/water
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
Press. Gas	Gas under pressure
Repr.	Reproductive toxicity
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
STEL	Short-term exposure limit
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure
TWA	Time-weighted average
UEL	Upper explosion limit (UEL)
UN RTDG	UN Recommendations on the Transport of Dangerous Good
vPvB	Very Persistent and very Bioaccumulative
WES	Safe Work Australia: Workplace exposure standards for airborne contaminants

### 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).

#### **Classification procedure**

Physical and chemical properties. The classification is based on tested mixture. Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

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

Code	Text
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H370	Causes damage to organs (eye).
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.

#### **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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