Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice

Karl-Fischer-ROTI®hydroquant C5 , 5 mg H_2O/ml, free of pyridine

article number: **T190**
Version: **GHS 2.0 en**
Replaces version of: 2020-03-06
Version: (GHS 1)

date of compilation: 2020-03-06
Revision: 2022-09-07

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

1.1 Product identifier

Identification of the substance: **Karl-Fischer-ROTI®hydroquant C5** , 5 mg H_2O/ml, free of pyridine

Article number: T190

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 squirting or spraying. Do not use for products which come into direct contact with the skin. 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 sheet: :Department Health, Safety and Environment

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
3.1I	Acute toxicity (inhal.)	4	Acute Tox. 4	H332
3.2	Skin corrosion/irritation	1B	Skin Corr. 1B	H314
3.3	Serious eye damage/eye irritation	1	Eye Dam. 1	H318

Section	Hazard class	Cat-egory	Hazard class and category	Hazard statement
3.7	Reproductive toxicity	1B	Repr. 1B	H360D
3.9	Specific target organ toxicity - repeated exposure	1	STOT RE 1	H372

For full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis. 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

GHS05, GHS07, GHS08

Hazard statements

H227	Combustible liquid
H314	Causes severe skin burns and eye damage
H332	Harmful if inhaled
H360D	May damage the unborn child
H372	Causes damage to organs (thyroid gland) through prolonged or repeated exposure (if swallowed)

Precautionary statements

Precautionary statements - prevention

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P260	Do not breathe dusts or mists
P280	Wear eye protection/face protection

Precautionary statements - response

P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
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

For professional users only

Hazardous ingredients for labelling: Imidazole, Sulphur dioxide, Iodine

2.3 Other hazards

This material is combustible, but will not ignite readily.

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 substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
Diethylene glycol monoethyl ether	CAS No 111-90-0	≥ 50			
Imidazole	CAS No 288-32-4	5 – 15	Acute Tox. 4 / H302 Skin Corr. 1C / H314 Eye Dam. 1 / H318 Repr. 1B / H360D		
Iodine	CAS No 7553-56-2	5 – 15	Acute Tox. 4 / H302 Acute Tox. 4 / H312 Acute Tox. 4 / H332 Skin Irrit. 2 / H315 Eye Irrit. 2A / H319 STOT SE 3 / H335 STOT RE 1 / H372		
Sulphur dioxide	CAS No 7446-09-5	2 – 10	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 percentage

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Take off immediately all contaminated clothing. Self-protection of the first aider.

Following inhalation

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

Following skin contact

After contact with skin, wash immediately with plenty of water. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.

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. Protect uninjured eye.

Following ingestion

Rinse mouth immediately and drink plenty of water. If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects). In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

4.2 Most important symptoms and effects, both acute and delayed

Corrosion, Risk of blindness, Gastric perforation, Risk of serious damage to eyes

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_2)

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

In case of fire may be liberated: Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO_2), Sulphur oxides (SOx), 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. Wear full chemical protective clothing.

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. Handle and open container with care. Avoid exposure. Clear contaminated areas thoroughly.

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

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)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
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	Ceiling value is a limit value above which exposure should not occur
STEL	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)
TWA	Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Diethylene glycol monoethyl ether	111-90-0	DNEL	61 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Diethylene glycol monoethyl ether	111-90-0	DNEL	30 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
Diethylene glycol monoethyl ether	111-90-0	DNEL	83 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Imidazole	288-32-4	DNEL	10.6 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Imidazole	288-32-4	DNEL	1.5 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Iodine	7553-56-2	DNEL	0.07 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Iodine	7553-56-2	DNEL	0.01 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Sulphur dioxide	7446-09-5	DNEL	1.3 mg/m³	human, inhalatory	worker (industry)	chronic - local effects

Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Sulphur dioxide	7446-09-5	DNEL	2.7 mg/m³	human, inhalatory	worker (industry)	acute - local effects

Relevant PNECs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Diethylene glycol monoethyl ether	111-90-0	PNEC	1.98 mg/l	aquatic organisms	freshwater	short-term (single instance)
Diethylene glycol monoethyl ether	111-90-0	PNEC	0.198 mg/l	aquatic organisms	marine water	short-term (single instance)
Diethylene glycol monoethyl ether	111-90-0	PNEC	500 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Diethylene glycol monoethyl ether	111-90-0	PNEC	7.32 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Diethylene glycol monoethyl ether	111-90-0	PNEC	0.732 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Diethylene glycol monoethyl ether	111-90-0	PNEC	0.34 mg/kg	terrestrial organisms	soil	short-term (single instance)
Imidazole	288-32-4	PNEC	0.13 mg/l	aquatic organisms	freshwater	short-term (single instance)
Imidazole	288-32-4	PNEC	0.013 mg/l	aquatic organisms	marine water	short-term (single instance)
Imidazole	288-32-4	PNEC	10 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Imidazole	288-32-4	PNEC	0.336 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Imidazole	288-32-4	PNEC	0.034 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Imidazole	288-32-4	PNEC	0.043 mg/kg	terrestrial organisms	soil	short-term (single instance)
Iodine	7553-56-2	PNEC	18.13 µg/l	aquatic organisms	freshwater	short-term (single instance)
Iodine	7553-56-2	PNEC	60.01 µg/l	aquatic organisms	marine water	short-term (single instance)
Iodine	7553-56-2	PNEC	11 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Iodine	7553-56-2	PNEC	3.99 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Iodine	7553-56-2	PNEC	20.22 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Iodine	7553-56-2	PNEC	5.95 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Individual protection measures (personal protective equipment)

Eye/face protection

Use safety goggle with side protection. Wear face protection.

Skin protection

• hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. 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

0,5 mm

• breakthrough times of the glove material

>480 minutes (permeation: level 6)

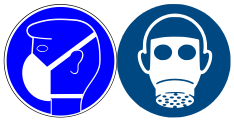
• Splash protection - Protective gloves

• type of material: CR: chloroprene (chlorobutadiene) rubber
• material thickness: 0,5 mm
• breakthrough times of the glove material: >120 minutes (permeation: level 4)

• 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). Type: E (against acidic gases like sulphur dioxide or hydrogen chloride, colour code: Yellow).

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	dark brown
Odour	characteristic
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	194 °C at 1,013 hPa
Flammability	flammable liquid in accordance with GHS criteria
Lower and upper explosion limit	1.2 vol% (LEL) - 12.2 vol% (UEL) (data apply to the main component)
Flash point	90 °C
Auto-ignition temperature	204 °C (data apply to the main component)
Decomposition temperature	not relevant
pH (value)	4 – 6 (20 °C)
Kinematic viscosity	not determined
Solubility(ies)	
Water solubility	(soluble)
Partition coefficient	
Partition coefficient n-octanol/water (log value):	this information is not available
Vapour pressure	not determined
Density and/or relative density	
Density	1.17 $^{g}/_{cm^3}$ 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:	There is no additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity

The mixture contains reactive substance(s). 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

Dangerous/dangerous reactions with: strong oxidiser, Reducing agents, Acids, Bases,
Release of an acute toxic gas: Heat => Sulphur dioxide (SO2)

10.4 Conditions to avoid

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

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

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
Imidazole	288-32-4	oral	970 $^{mg}/_{kg}$
Iodine	7553-56-2	oral	1,500 $^{mg}/_{kg}$
Iodine	7553-56-2	inhalation: dust/mist	>4.588 $^{mg}/_{l}$/4h
Sulphur dioxide	7446-09-5	inhalation: gas	700 $^{ppmV}/_{4h}$

Acute toxicity of components of the mixture					
Name of substance	**CAS No**	**Exposure route**	**Endpoint**	**Value**	**Species**
Diethylene glycol monoethyl ether	111-90-0	oral	LD50	6,031 $^{mg}/_{kg}$	mouse
Diethylene glycol monoethyl ether	111-90-0	dermal	LD50	9,143 $^{mg}/_{kg}$	rabbit
Imidazole	288-32-4	oral	LD50	970 $^{mg}/_{kg}$	rat
Iodine	7553-56-2	oral	LD50	14,000 $^{mg}/_{kg}$	not specified
Iodine	7553-56-2	inhalation: dust/mist	LC50	>4.588 $^{mg}/_{l}$/ 4h	rat
Iodine	7553-56-2	dermal	LD50	>2,000 $^{mg}/_{kg}$	rabbit

Skin corrosion/irritation

Causes severe skin burns and eye damage.

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.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

May damage the unborn child.

Specific target organ toxicity - single exposure

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

Specific target organ toxicity - repeated exposure

Causes damage to organs (thyroid gland) through prolonged or repeated exposure (if swallowed).

Hazard category	Target organ	Exposure route
1	thyroid gland	if swallowed

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

• If swallowed

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects)

• If in eyes

causes burns, Causes serious eye damage, risk of blindness

• If inhaled

cough, irritant effects

• If on skin

causes severe burns, causes poorly healing wounds, pruritis, localised redness

• 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.

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Diethylene glycol monoethyl ether	111-90-0	LC50	6,010 mg/l	fish	96 h
Diethylene glycol monoethyl ether	111-90-0	ErC50	14,861 mg/l	algae	72 h
Imidazole	288-32-4	LC50	283.6 mg/l	fish	48 h
Imidazole	288-32-4	EC50	341.5 mg/l	aquatic invertebrates	48 h
Imidazole	288-32-4	ErC50	133 mg/l	algae	72 h
Iodine	7553-56-2	LC50	1.67 mg/l	fish	96 h
Iodine	7553-56-2	ErC50	0.13 mg/l	algae	72 h

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Imidazole	288-32-4	EC50	>1,000 mg/l	microorganisms	30 min
Iodine	7553-56-2	EC50	280 mg/l	microorganisms	3 h

Biodegradation

Data are not available.

12.2 Process of degradability

Degradability of components of the mixture

Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
Diethylene glycol monoethyl ether	111-90-0	biotic/abiotic	90 %	28 d		
Diethylene glycol monoethyl ether	111-90-0	carbon dioxide generation	7.1 %	3 d		ECHA

Degradability of components of the mixture						
Name of substance	**CAS No**	**Process**	**Degradation rate**	**Time**	**Method**	**Source**
Imidazole	288-32-4	biotic/abiotic	86 %	19 d		
Imidazole	288-32-4	DOC removal	90 – 100 %	18 d		ECHA

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**
Diethylene glycol monoethyl ether	111-90-0		-0.54 (pH value: 7, 20 °C)	
Imidazole	288-32-4		0.0586	
Iodine	7553-56-2		2.49 (20 °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

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

H8 Corrosives
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 1760
IMDG-Code	UN 1760
ICAO-TI	UN 1760

14.2 UN proper shipping name

UN RTDG	CORROSIVE LIQUID, N.O.S.
IMDG-Code	CORROSIVE LIQUID, N.O.S.
ICAO-TI	Corrosive liquid, n.o.s.
Technical name (hazardous ingredients)	Imidazole, Iodine

14.3 Transport hazard class(es)

UN RTDG	8
IMDG-Code	8
ICAO-TI	8

14.4 Packing group

UN RTDG	II
IMDG-Code	II
ICAO-TI	II

14.5 Environmental hazards non-environmentally hazardous acc. to the dangerous goods regulations

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	1760
Class	8
Packing group	II
Danger label(s)	8

Special provisions (SP)	274 UN RTDG
Excepted quantities (EQ)	E2 UN RTDG

Limited quantities (LQ)	1 L UN RTDG

International Maritime Dangerous Goods Code (IMDG) - Additional information

Proper shipping name	CORROSIVE LIQUID, N.O.S.
Particulars in the shipper's declaration	UN1760, CORROSIVE LIQUID, N.O.S., (contains: Imidazole, Iodine), 8, II
Marine pollutant	-
Danger label(s)	8

Special provisions (SP)	274
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
EmS	F-A, S-B
Stowage category	B

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

Proper shipping name	Corrosive liquid, n.o.s.
Particulars in the shipper's declaration	UN1760, Corrosive liquid, n.o.s., (contains: Imidazole, Iodine), 8, II
Danger label(s)	8

Special provisions (SP)	A3
Excepted quantities (EQ)	E2
Limited quantities (LQ)	0,5 L

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	AIIC	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
US	TSCA	all ingredients are listed

Legend

AIIC	Australian Inventory of Industrial Chemicals
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
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	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-relevant
2.1		Classification acc. to GHS: change in the listing (table)	yes

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
2.1		The most important adverse physicochemical, human health and environmental effects: Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis. 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		Hazard statements: change in the listing (table)	yes
2.2		Precautionary statements - response: change in the listing (table)	yes
2.2		Precautionary statements - disposal: change in the listing (table)	yes
2.2	Hazardous ingredients for labelling: Sulphur dioxide, Iodine	Hazardous ingredients for labelling: Imidazole, Sulphur dioxide, Iodine	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
2.2	contains: Sulphur dioxide, Iodine		yes
2.3	Other hazards: There is no additional information.	Other hazards: This material is combustible, but will not ignite readily.	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
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)

Abbr.	Descriptions of used abbreviations
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
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
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
LEL	Lower explosion limit (LEL)
log KOW	n-Octanol/water
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

Abbr.	Descriptions of used abbreviations
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).

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

Code	Text
H227	Combustible liquid.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
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.
H360D	May damage the unborn child.
H372	Causes damage to organs (thyroid gland) through prolonged or repeated exposure (if swallowed).

Disclaimer

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