acc. to Safe Work Australia - Code of Practice



## Mercury(II) sulphate solution 80 q/l, in sulphuric acid potassium dichromate standard solution. 0,02 mol/l volumetric standard solution

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Revision: 2022-07-19

Replaces version of: 2020-01-16

Version: (GHS 2)

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

#### **Product identifier** 1.1

Identification of the substance Mercury(II) sulphate solution 80 g/l, in sulphur-

ic acid potassium dichromate standard solution.

0,02 mol/l volumetric standard solution

Article 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 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).

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

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

## **SECTION 2: Hazards identification**

## Classification of the substance or mixture

Classification acc. to GHS

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Section	Hazard class	Cat- egory	Hazard class and category	Hazard statement
2.16	Substance or mixture corrosive to metals	1	Met. Corr. 1	H290
3.10	Acute toxicity (oral)	2	Acute Tox. 2	H300
3.1D	Acute toxicity (dermal)	1	Acute Tox. 1	H310
3.1I	Acute toxicity (inhal.)	2	Acute Tox. 2	H330
3.2	Skin corrosion/irritation	1	Skin Corr. 1	H314
3.3	Serious eye damage/eye irritation	1	Eye Dam. 1	H318
3.5	Germ cell mutagenicity	1B	Muta. 1B	H340
3.6	Carcinogenicity	1B	Carc. 1B	H350
3.7	Reproductive toxicity	1B	Repr. 1B	H360FD

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.

## 2.2 Label elements

## Labelling

Signal word Danger

## **Pictograms**

GHS05, GHS06, GHS08







## **Hazard statements**

H290 May be corrosive to metals

H300+H310+H330 Fatal if swallowed, in contact with skin or if inhaled

H314 Causes severe skin burns and eye damage

H340 May cause genetic defects

H350 May cause cancer

H360FD May damage fertility. May damage the unborn child

## **Precautionary statements**

## **Precautionary statements - prevention**

P260 Do not breathe dusts or mists

P262 Do not get in eyes, on skin, or on clothing P280 Wear protective gloves/protective clothing

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## **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

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin

with water or shower

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfort-

able for breathing

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing

## Precautionary statements - storage

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

For professional users only

**Hazardous ingredients for labelling:** Mercury(II) sulphate, Potassium dichromate, Sul-

phuric acid

## 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
Sulphuric acid	CAS No 7664-93-9	15 – < 25	Met. Corr. 1 / H290 Skin Corr. 1 / H314 Eye Dam. 1 / H318		B(a) IARC: 1 RoC "Known"
Mercury(II) sulphate	CAS No 7783-35-9	5 – 10	Acute Tox. 3 / H301 Acute Tox. 3 / H311 Acute Tox. 2 / H330 STOT RE 2 / H373		
Potassium dichromate	CAS No 7778-50-9	< 2.5	Ox. Sol. 2 / H272 Acute Tox. 3 / H301 Acute Tox. 4 / H312 Acute Tox. 2 / H330 Skin Corr. 1B / H314 Eye Dam. 1 / H318 Resp. Sens. 1 / H334 Skin Sens. 1 / H317 Muta. 1B / H340 Carc. 1B / H350 Repr. 1B / H360FD STOT SE 3 / H335 STOT RE 1 / H372		3 IARC: 1 RoC "Known"

### Notes

3: The concentration stated is the percentage by weight of chromate ions dissolved in water calculated with reference to the total weight of the mixture.

B(a): The classification refers to an aqueous solution

IARC: 1: IARC group 1: carcinogenic to humans (International Agency for Research on Cancer)

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Notes

RoC NTP-RoC: Known To Be A Human Carcinogen "Known"

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

Call a physician immediately. If breathing is irregular or stopped, administer artificial respiration.

## 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, alcohol resistant foam, 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

Non-combustible.

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## **Hazardous combustion products**

In case of fire may be liberated: Sulphur oxides (SOx), Mercury and mercury compounds

## 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.

## 6.2 Environmental precautions

Keep away from drains, surface and ground water.

## 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.

## 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

Use extractor hood (laboratory). Handle and open container with care. Avoid exposure. Clear contaminated areas thoroughly.

## Advice on general occupational hygiene

When using do not eat or drink. Thorough skin-cleansing after handling the product.

## 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:

Store locked up.

## **Ventilation requirements**

Keep any substance that emits harmful vapours or gases in a place that allows these to be perman-

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ently extracted.

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	sulfuric acid	7664-93- 9	WES		1		3				WES

Notation

Ceiling-C STEL

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

hours time-weighted average (unless otherwise specified)

## 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
Sulphuric acid	7664-93-9	DNEL	0.05 mg/ m³	human, inhalat- ory	worker (industry)	chronic - local ef- fects
Sulphuric acid	7664-93-9	DNEL	0.1 mg/m <sup>3</sup>	human, inhalat- ory	worker (industry)	acute - local ef- fects

## Relevant PNECs of components of the mixture

Name of sub- stance	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time
Sulphuric acid	7664-93-9	PNEC	0.003 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	freshwater	short-term (single instance)
Sulphuric acid	7664-93-9	PNEC	0 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	marine water	short-term (single instance)
Sulphuric acid	7664-93-9	PNEC	8.8 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)
Sulphuric acid	7664-93-9	PNEC	0.002 <sup>mg</sup> / kg	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)
Sulphuric acid	7664-93-9	PNEC	0.002 <sup>mg</sup> / kg	aquatic organ- isms	marine sediment	short-term (single instance)

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Relev	ant PNECs	of compone	ents of th	e mix	ture

Name of sub- stance	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time
Potassium dichro- mate	7778-50-9	PNEC	0 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	freshwater	short-term (single instance)
Potassium dichro- mate	7778-50-9	PNEC	0.21 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)
Potassium dichro- mate	7778-50-9	PNEC	0.15 <sup>mg</sup> / <sub>kg</sub>	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)
Potassium dichro- mate	7778-50-9	PNEC	0.15 <sup>mg</sup> / <sub>kg</sub>	aquatic organ- isms	marine sediment	short-term (single instance)
Potassium dichro- mate	7778-50-9	PNEC	0.035 <sup>mg</sup> / kg	terrestrial organ- isms	soil	short-term (single instance)

## 8.2 Exposure controls

Individual protection measures (personal protective equipment)

## **Eye/face protection**





Use safety goggle with side protection. 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

FKM: fluoro-elastomer

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.

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## **Respiratory protection**





Respiratory protection necessary at: Aerosol or mist formation. Type: Hg (against mercury vapour, colour code: Red).

## **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 orange
Odour odourless

Melting point/freezing point not determined

Boiling point or initial boiling point and boiling not determined

range

Flammability non-combustible
Lower and upper explosion limit not determined
Flash point not determined
Auto-ignition temperature not determined
Decomposition temperature not relevant

pH (value) not determined (acidic)

Kinematic viscosity not determined

Solubility(ies)

Water solubility miscible in any proportion

Partition coefficient

Partition coefficient n-octanol/water (log value): not relevant (inorganic)

Vapour pressure not determined

Density and/or relative density

Density  $1.19 \, {}^{9}/_{cm^3}$  at 20  ${}^{\circ}$ C

Relative vapour density information on this property is not available

Particle characteristics not relevant (liquid)

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Other safety parameters

Oxidising properties none

9.2 Other information

Information with regard to physical hazard

classes:

Corrosive to metals category 1: corrosive to metals

Other safety characteristics:

Miscibility completely miscible with water

# **SECTION 10: Stability and reactivity**

## 10.1 Reactivity

Substance or mixture corrosive to metals.

## 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: Alkali (lye), Alkali metals, Ammonia (NH3), Alkaline earth metal, Metal powder

## 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

## 10.5 Incompatible materials

different metals

## 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**

Fatal if swallowed. Fatal in contact with skin. Fatal if inhaled.

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

Name of substance	CAS No	Exposure route	ATE
Mercury(II) sulphate	7783-35-9	oral	57 <sup>mg</sup> / <sub>kg</sub>
Mercury(II) sulphate	7783-35-9	dermal	625 <sup>mg</sup> / <sub>kg</sub>

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

Name of substance	CAS No	Exposure route	ATE
Mercury(II) sulphate	7783-35-9	inhalation: dust/mist	0.05 <sup>mg</sup> / <sub>l</sub> /4h
Potassium dichromate	7778-50-9	oral	67 <sup>mg</sup> / <sub>kg</sub>
Potassium dichromate	7778-50-9	dermal	<2,000 <sup>mg</sup> / <sub>kg</sub>
Potassium dichromate	7778-50-9	inhalation: dust/mist	0.083 <sup>mg</sup> / <sub>l</sub> /4h

## Acute toxicity of components of the mixture

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Sulphuric acid	7664-93-9	oral	LD50	2,140 <sup>mg</sup> / <sub>kg</sub>	rat
Mercury(II) sulphate	7783-35-9	oral	LD50	57 <sup>mg</sup> / <sub>kg</sub>	rat
Mercury(II) sulphate	7783-35-9	dermal	LD50	625 <sup>mg</sup> / <sub>kg</sub>	rat
Potassium dichromate	7778-50-9	oral	LD50	67 <sup>mg</sup> / <sub>kg</sub>	rat
Potassium dichromate	7778-50-9	inhalation: dust/mist	LC50	83 <sup>mg</sup> / <sub>m³</sub> /4h	rat
Potassium dichromate	7778-50-9	dermal	LD50	<2,000 <sup>mg</sup> / <sub>kg</sub>	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**

May cause genetic defects.

## Carcinogenicity

May cause cancer.

## **Reproductive toxicity**

May damage the unborn child. May damage fertility.

## 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

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## 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

irritant effects

## • If on skin

causes severe burns, causes poorly healing wounds

## Other information

Other adverse effects: Cardiovascular system, Renal impairment, Circulatory collapse, Cardiac arrhythmias, Blood pressure drop, Nausea, Impairment of vision

## 11.2 Endocrine disrupting properties

None of the ingredients are listed.

# **SECTION 12: Ecological information**

## 12.1 Toxicity

Toxic to aquatic life with long lasting effects.

# Aquatic toxicity (acute) of components of the mixture

Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time
Sulphuric acid	7664-93-9	EC50	>100 <sup>mg</sup> / <sub>l</sub>	aquatic invertebrates	48 h
Sulphuric acid	7664-93-9	ErC50	>100 <sup>mg</sup> / <sub>l</sub>	algae	72 h

## **Biodegradation**

The methods for determining the biological degradability are not applicable to inorganic substances.

## 12.2 Process of degradability

Data are not available.

## 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
Mercury(II) sulphate	7783-35-9		-0.07 (25 °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.

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### 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

**H6.1** Poisonous (Acute)

**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 3289
IMDG-Code UN 3289
ICAO-TI UN 3289

## 14.2 UN proper shipping name

UN RTDGTOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S.IMDG-CodeTOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S.

ICAO-TI Toxic liquid, corrosive, inorganic, n.o.s.

Technical name (hazardous ingredients) Mercury(II) sulphate, Sulphuric acid

## 14.3 Transport hazard class(es)

UN RTDG 6.1 (8)
IMDG-Code 6.1 (8)

## 14.4 Packing group

ICAO-TI

UN RTDG

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6.1 (8)

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**IMDG-Code** Ι ICAO-TI T

14.5 Environmental hazards hazardous to the aquatic environment

Environmentally hazardous substance (aquatic

environment):

Mercury(II) sulphate

#### 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** 3289 Class 6.1 Subsidiary risk(s) 8

**Environmental hazards** 

Hazardous to the aquatic environment

Packing group

6.1+8 Danger label(s)

Fish and tree



Special provisions (SP) 274, 315 UN RTDG

**Excepted quantities (EQ)** 

**UN RTDG** 

Limited quantities (LQ)

**UN RTDG** 

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

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

Particulars in the shipper's declaration UN3289, TOXIC LIQUID, CORROSIVE, INORGANIC,

N.O.S., (contains: Mercury(II) sulphate, Sulphuric

acid), 6.1 (8), I, MARINE POLLUTANT

Marine pollutant yes (hazardous to the aquatic environment), (Mercury(II)

sulphate)

Danger label(s) 6.1+8, "Fish and tree"





Special provisions (SP) 274, 315 Excepted quantities (EQ) **E**5

Limited quantities (LQ) 0

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EmS F-A, S-B

Stowage category E

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

Proper shipping name Toxic liquid, corrosive, inorganic, n.o.s.

Particulars in the shipper's declaration UN3289, Toxic liquid, corrosive, inorganic, n.o.s.,

(contains: Mercury(II) sulphate, Sulphuric acid),

6.1 (8), I

Environmental hazards yes (hazardous to the aquatic environment)

Danger label(s) 6.1+8



Special provisions (SP) A4, A137

Excepted quantities (EQ) E5

# **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.

## **UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances**

Name of substance	CAS No	Listed in	HS code
Sulphuric acid	7664-93-9	Table II	2807.00

### **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	all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	all ingredients are listed
NZ	NZIoC	all ingredients are listed

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Country	Inventory	Status
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 CICR CSCL-ENCS

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

DSL ECSI Domestic Substances List (DSL)

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

Taiwan Chemical Substance Inventory TCSI **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		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.	yes
2.2		Precautionary statements - response: change in the listing (table)	yes
2.2	Hazardous ingredients for labelling: Potassium dichromate, Sulphuric acid, Mercury(II) sulphate	Hazardous ingredients for labelling: Mercury(II) sulphate, Potassium dichromate, Sulphuric acid	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

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# Mercury(II) sulphate solution 80 g/l, in sulphuric acid potassium dichromate standard solution. 0,02 mol/l volumetric standard solution

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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	contains: Potassium dichromate, Sulphuric acid, Mercury(II) sulphate		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
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 causir 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 N tions
HS	Harmonized Commodity Description and Coding System (Harmonized System, drawn up by the Wor Customs Organisation)
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)

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Abbr.	Descriptions of used abbreviations
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
Met. Corr.	Substance or mixture corrosive to metals
Muta.	Germ cell mutagenicity
NLP	No-Longer Polymer
NTP-RoC	National Toxicology Program: Report on Carcinogens
Ox. Sol.	Oxidising solid
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
Repr.	Reproductive toxicity
Resp. Sens.	Respiratory sensitisation
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitisation
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
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
H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H300	Fatal if swallowed.
H301	Toxic if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H340	May cause genetic defects.
H350	May cause cancer.
H360FD	May damage fertility. May damage the unborn child.
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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