acc. to Safe Work Australia - Code of Practice

## Potassium peroxymonosulphate triple salt, pure

article number: 1AA1 Version: GHS 2.0 en

Replaces version of: 2020-04-17

Version: (GHS 1)



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

#### **Product identifier** 1.1

Identification of the substance Potassium peroxymonosulphate triple salt,

pure

Article number **1AA1** 

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

Relevant identified uses: Laboratory and analytical use

Laboratory chemical

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 :Department Health, Safety and Environment

sheet:

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

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

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 2.1

#### Classification acc. to GHS

Section	Hazard class	Cat- egory	Hazard class and category	Hazard statement
3.10	Acute toxicity (oral)	4	Acute Tox. 4	H302
3.2	Skin corrosion/irritation	1B	Skin Corr. 1B	H314
3.3	Serious eye damage/eye irritation	1	Eye Dam. 1	H318

For full text of abbreviations: see SECTION 16

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## 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.

#### **Label elements** 2.2

#### Labelling

Signal word Danger

## **Pictograms**

GHS05, GHS07



#### **Hazard statements**

H302 Harmful if swallowed

H314 Causes severe skin burns and eye damage

## **Precautionary statements**

## **Precautionary statements - prevention**

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

P321 Specific treatment (see on this label)

## **Precautionary statements - disposal**

P501 Dispose of contents/container to industrial combustion plant

**Hazardous ingredients for labelling:** Pentapotassium bis(peroxymonosulphate)

bis(sulphate), Dipotassium disulphate, Potassium hydrogen sulphate, Potassium persulphate

#### 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**

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## **Description of the mixture**

Name of sub- stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
Pentapotassium bis(peroxymono- sulphate) bis(sulphate)	CAS No 70693-62-8	> 90	Acute Tox. 4 / H302 Skin Corr. 1B / H314 Eye Dam. 1 / H318		
Dipotassium di- sulphate	CAS No 7790-62-7	≤5	Acute Tox. 3 / H331 Skin Corr. 1A / H314 Eye Dam. 1 / H318 EUH071		
Potassium hydrogen sulphate	CAS No 7646-93-7	≤5	Skin Corr. 1B / H314 STOT SE 3 / H335		
Potassium per- sulphate	CAS No 7727-21-1	< 5	Ox. Sol. 3 / H272 Acute Tox. 4 / H302 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Resp. Sens. 1 / H334 Skin Sens. 1 / H317 STOT SE 3 / H335		

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. Rinse mouth with water (only if the person is conscious). Call a physician immediately. If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

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

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

# 4.3 Indication of any immediate medical attention and special treatment needed

none

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# **SECTION 5: Firefighting measures**

## 5.1 Extinguishing media



## Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings water, foam, alcohol resistant foam, dry extinguishing powder, ABC-powder

## Unsuitable extinguishing media

water jet

## 5.2 Special hazards arising from the substance or mixture

Non-combustible.

## **Hazardous combustion products**

Sulphur oxides (SOx)

## 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 dust.

#### 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. Take up mechanically.

#### Advice on how to clean up a spill

Take up mechanically. Control of dust.

## 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.

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## SECTION 7: Handling and storage

#### Precautions for safe handling 7.1

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

## Measures to prevent fire as well as aerosol and dust generation

Removal of dust deposits.

## 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

Store in a dry place.

## **Incompatible substances or mixtures**

Observe hints for combined storage.

## Consideration of other advice:

## **Ventilation requirements**

Use local and general ventilation.

## Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C

#### Specific end use(s) 7.3

No information available.

# SECTION 8: Exposure controls/personal protection

#### 8.1 **Control parameters**

## **National limit values**

## **Occupational exposure limit values (Workplace Exposure Limits)**

Coun try	Name of agent	CAS No	Identifi- er	TWA [mg/ m³]	STEL [mg/ m³]	Ceil- ing-C [mg/ m³]	Nota- tion	Source
AU	potassium persulfate	7727-21-1	WES			0.01		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

hours time-weighted average (unless otherwise specified)

#### Relevant DNELs of components of the mixture Name of sub-**CAS No Used** in **Exposure time** End-**Threshol Protection** d level goal, route of point stance exposure 70693-62-8 0.28 mg/ Pentapotassium DNFI human, inhalatworker (industry) chronic - systemic effects bis(peroxymono $m^3$ orv sulphate) bis(sulphate)

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## Relevant DNELs of components of the mixture

CAS No					
CAS NO	End- point	Threshol d level	Protection goal, route of exposure	Used in	Exposure time
70693-62-8	DNEL	50 mg/m³	human, inhalat- ory	worker (industry)	acute - systemic effects
70693-62-8	DNEL	0.28 mg/ m³	human, inhalat- ory	worker (industry)	chronic - local ef- fects
70693-62-8	DNEL	50 mg/m <sup>3</sup>	human, inhalat- ory	worker (industry)	acute - local ef- fects
70693-62-8	DNEL	20 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
70693-62-8	DNEL	80 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
7790-62-7	DNEL	0.13 mg/ m³	human, inhalat- ory	worker (industry)	chronic - systemic effects
7790-62-7	DNEL	0.26 mg/ m <sup>3</sup>	human, inhalat- ory	worker (industry)	acute - systemic effects
7790-62-7	DNEL	0.13 mg/ m³	human, inhalat- ory	worker (industry)	chronic - local ef- fects
7790-62-7	DNEL	0.26 mg/ m³	human, inhalat- ory	worker (industry)	acute - local ef- fects
7727-21-1	DNEL	2.06 mg/ m <sup>3</sup>	human, inhalat- ory	worker (industry)	chronic - systemic effects
7727-21-1	DNEL	590 mg/m <sup>3</sup>	human, inhalat- ory	worker (industry)	acute - systemic effects
7727-21-1	DNEL	2.06 mg/ m³	human, inhalat- ory	worker (industry)	chronic - local ef- fects
7727-21-1	DNEL	18.2 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
7727-21-1	DNEL	400 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
	70693-62-8 70693-62-8 70693-62-8 70693-62-7 7790-62-7 7790-62-7 7727-21-1 7727-21-1 7727-21-1	70693-62-8 DNEL 70693-62-8 DNEL 70693-62-8 DNEL 70693-62-8 DNEL 70693-62-7 DNEL 7790-62-7 DNEL 7790-62-7 DNEL 7790-62-7 DNEL 7727-21-1 DNEL 7727-21-1 DNEL 7727-21-1 DNEL 7727-21-1 DNEL	70693-62-8 DNEL 50 mg/m³  70693-62-8 DNEL 50 mg/m³  70693-62-8 DNEL 50 mg/m³  70693-62-8 DNEL 20 mg/kg bw/day  70693-62-7 DNEL 0.13 mg/m³  7790-62-7 DNEL 0.26 mg/m³  7790-62-7 DNEL 0.13 mg/m³  7790-62-7 DNEL 0.13 mg/m³  7790-62-7 DNEL 50 mg/m³  7790-62-7 DNEL 50 mg/m³  7790-62-7 DNEL 50 mg/m³  7727-21-1 DNEL 590 mg/m³  7727-21-1 DNEL 590 mg/m³  7727-21-1 DNEL 18.2 mg/kg bw/day  7727-21-1 DNEL 400 mg/kg	70693-62-8         DNEL         50 mg/m³         human, inhalatory           70693-62-8         DNEL         0.28 mg/m³         human, inhalatory           70693-62-8         DNEL         50 mg/m³         human, inhalatory           70693-62-8         DNEL         20 mg/kg bw/day         human, dermal           70693-62-8         DNEL         80 mg/kg bw/day         human, inhalatory           7790-62-7         DNEL         0.13 mg/m³         human, inhalatory           7790-62-7         DNEL         0.13 mg/m³         human, inhalatory           7790-62-7         DNEL         0.13 mg/m³         human, inhalatory           7790-62-7         DNEL         0.26 mg/m³         human, inhalatory           7727-21-1         DNEL         2.06 mg/m³         human, inhalatory           7727-21-1         DNEL         590 mg/m³         human, inhalatory           7727-21-1         DNEL         2.06 mg/m³         human, inhalatory           7727-21-1         DNEL         18.2 mg/kg         human, dermal           7727-21-1         DNEL         400 mg/kg         human, dermal	20 mg/m³ human, inhalatory  20 mg/kg bw/day human, inhalatory  20 mg/s bw/day human, inhalatory  20 mg/kg bw/day human, dermal worker (industry)  20 mg/kg bw/day human, dermal worker (industry)  20 mg/kg bw/day human, dermal worker (industry)  20 mg/kg bw/day human, inhalatory  20 mg/kg bw/day worker (industry)  21 mg/kg human, inhalatory  22 mg/kg human, inhalatory  23 mg/kg human, inhalatory  24 mg/kg human, inhalatory  25 mg/kg human, inhalatory  26 mg/kg human, inhalatory  27 mg/kg human, inhalato

## Relevant PNECs of components of the mixture

Name of sub- stance	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time
Pentapotassium bis(peroxymono- sulphate) bis(sulph- ate)	70693-62-8	PNEC	0.022 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	freshwater	short-term (single instance)

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Potassium persulphate 7727-21-1

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short-term (single instance)

soil

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						
Pentapotassium bis(peroxymono- sulphate) bis(sulph- ate)	70693-62-8	PNEC	0.002 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	marine water	short-term (single instance)						
Pentapotassium bis(peroxymono- sulphate) bis(sulph- ate)	70693-62-8	PNEC	108 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)						
Pentapotassium bis(peroxymono- sulphate) bis(sulph- ate)	70693-62-8	PNEC	0.078 <sup>mg</sup> / kg	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)						
Pentapotassium bis(peroxymono- sulphate) bis(sulph- ate)	70693-62-8	PNEC	0.008 <sup>mg</sup> / kg	aquatic organ- isms	marine sediment	short-term (single instance)						
Pentapotassium bis(peroxymono- sulphate) bis(sulph- ate)	70693-62-8	PNEC	1 <sup>mg</sup> / <sub>kg</sub>	terrestrial organ- isms	soil	short-term (single instance)						
Dipotassium di- sulphate	7790-62-7	PNEC	0.68 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	freshwater	short-term (single instance)						
Dipotassium di- sulphate	7790-62-7	PNEC	0.068 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	marine water	short-term (single instance)						
Dipotassium di- sulphate	7790-62-7	PNEC	800 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)						
Dipotassium di- sulphate	7790-62-7	PNEC	2.5 <sup>mg</sup> / <sub>kg</sub>	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)						
Dipotassium di- sulphate	7790-62-7	PNEC	0.25 <sup>mg</sup> / <sub>kg</sub>	aquatic organ- isms	marine sediment	short-term (single instance)						
Dipotassium di- sulphate	7790-62-7	PNEC	0.092 <sup>mg</sup> / kg	terrestrial organ- isms	soil	short-term (single instance)						
Potassium per- sulphate	7727-21-1	PNEC	0.076 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	freshwater	short-term (single instance)						
Potassium per- sulphate	7727-21-1	PNEC	0.011 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	marine water	short-term (single instance)						
Potassium per- sulphate	7727-21-1	PNEC	3.6 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)						
Potassium per- sulphate	7727-21-1	PNEC	0.275 <sup>mg</sup> / kg	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)						
Potassium per- sulphate	7727-21-1	PNEC	0.04 <sup>mg</sup> / <sub>kg</sub>	aquatic organ- isms	marine sediment	short-term (single instance)						
	1		1	1	1							

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0.015 <sup>mg</sup>/

terrestrial organ-

PNEC

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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

NBR (Nitrile rubber)

#### material thickness

>0,11 mm

## breakthrough times of the glove material

>480 minutes (permeation: level 6)

## other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

## **Respiratory protection**





Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P2 (filters at least 94 % of airborne particles, colour code: White).

#### **Environmental exposure controls**

Keep away from drains, surface and ground water.

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## Individual protection measures (personal protective equipment)

## **Eye/face protection**





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# **SECTION 9: Physical and chemical properties**

## 9.1 Information on basic physical and chemical properties

Physical state solid

Form granulate Colour white

Odour odourless

Melting point/freezing point 90 °C (slow decomposition)

Boiling point or initial boiling point and boiling not determined

range

Flammability non-combustible
Lower and upper explosion limit not determined
Flash point not applicable

Auto-ignition temperature >400 °C

Decomposition temperature >90 °C

pH (value) 2.1 (in aqueous solution: 30 <sup>g</sup>/<sub>l</sub>, 20 °C)

Kinematic viscosity not relevant

Solubility(ies)

Water solubility 357 <sup>g</sup>/<sub>l</sub> at 20 °C

Partition coefficient

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

Vapour pressure not determined

Density and/or relative density

Density  $2.35 \, {}^{9}/_{cm^3}$  at 20  ${}^{\circ}$ C

Relative vapour density information on this property is not available

Bulk density  $950 - 1,250 \frac{\text{kg}}{\text{m}^3}$ 

Particle characteristics No data available.

Other safety parameters

Oxidising properties none

9.2 Other information

Information with regard to physical hazard hazard classes acc. to GHS (physical hazards): not relevant

(physical flazards). Hot relevant

Other safety characteristics: There is no additional information.

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# **SECTION 10: Stability and reactivity**

## 10.1 Reactivity

This material is not reactive under normal ambient conditions.

## 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 alkali

#### 10.4 Conditions to avoid

Keep away from heat. Decompostion takes place from temperatures above: >90 °C.

## 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 swallowed.

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

Name of substance	CAS No	Exposure route	ATE
Pentapotassium bis(peroxymonosulphate) bis(sulphate)	70693-62-8	oral	500 <sup>mg</sup> / <sub>kg</sub>
Pentapotassium bis(peroxymonosulphate) bis(sulphate)	70693-62-8	inhalation: dust/mist	
Dipotassium disulphate	7790-62-7	inhalation: dust/mist	>0.5 <sup>mg</sup> / <sub>l</sub> /4h
Potassium persulphate	7727-21-1	oral	742 <sup>mg</sup> / <sub>kg</sub>

## Acute toxicity of components of the mixture

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Pentapotassium bis(peroxymono- sulphate) bis(sulphate)	70693-62-8	oral	LD50	500 <sup>mg</sup> / <sub>kg</sub>	rat
Pentapotassium bis(peroxymono- sulphate) bis(sulphate)	70693-62-8	inhalation: dust/mist	LC50	>5 <sup>mg</sup> / <sub>l</sub> /4h	rat

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Acute toxicity of components of the mixture										
Name of substance	CAS No	Exposure route	Endpoint	Value	Species					
Pentapotassium bis(peroxymono- sulphate) bis(sulphate)	70693-62-8	dermal	LD50	>2,000 <sup>mg</sup> / <sub>kg</sub>	rat					
Potassium hydrogen sulphate	7646-93-7	oral	LD50	>2,000 <sup>mg</sup> / <sub>kg</sub>	rat					
Dipotassium disulphate	7790-62-7	oral	LD50	2,140 <sup>mg</sup> / <sub>kg</sub>	rat					
Potassium persulphate	7727-21-1	oral	LD50	742 <sup>mg</sup> / <sub>kg</sub>	rat					
Potassium persulphate	7727-21-1	dermal	LD50	>2,000 <sup>mg</sup> / <sub>kg</sub>	rat					

## 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**

Shall not be classified as a reproductive toxicant.

## Specific target organ toxicity - single exposure

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

## Specific target organ toxicity - repeated exposure

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

## **Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

## Symptoms related to the physical, chemical and toxicological characteristics

## If swallowed

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

Inhalation of dust may cause irritation of the respiratory system

## • If on skin

causes severe burns, causes poorly healing wounds

#### Other information

none

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None of the ingredients are listed.

# **SECTION 12: Ecological information**

## 12.1 Toxicity

Toxic to aquatic life. May cause long lasting harmful effects to aquatic life.

#### Aquatic toxicity (acute) of components of the mixture Exposure Name of sub-**CAS No Endpoint Value Species** time stance Pentapotassium 70693-62-8 LC50 53 mg/<sub>1</sub> fish 96 h bis(peroxymonosulphate) bis(sulphate) $3.5 \frac{mg}{I}$ Pentapotassium 70693-62-8 EC50 aquatic invertebrates 48 h bis(peroxymonosulphate) bis(sulphate) >1 <sup>mg</sup>/<sub>I</sub> ErC50 72 h Pentapotassium 70693-62-8 algae bis(peroxymonosulphate) bis(sulphate) Dipotassium di-7790-62-7 LC50 680 mg/<sub>I</sub> fish 96 h sulphate Dipotassium di-7790-62-7 EC50 720 mg/<sub>I</sub> aquatic invertebrates 48 h sulphate 76.3 <sup>mg</sup>/<sub>I</sub> Potassium per-7727-21-1 LC50 fish 96 h sulphate 120 mg/1 Potassium per-7727-21-1 EC50 aquatic invertebrates 48 h sulphate

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

Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time
Pentapotassium bis(peroxymono- sulphate) bis(sulphate)	70693-62-8	LC50	367 <sup>µg</sup> / <sub>l</sub>	aquatic invertebrates	28 d
Pentapotassium bis(peroxymono- sulphate) bis(sulphate)	70693-62-8	EC50	179 <sup>mg</sup> / <sub>l</sub>	microorganisms	18 h
Potassium per- sulphate	7727-21-1	EC50	11 <sup>mg</sup> / <sub>l</sub>	aquatic invertebrates	5 d

## **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.

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## Bioaccumulative potential of components of the mixture

Name of substance	CAS No	BCF	Log KOW	BOD5/COD
Pentapotassium bis(peroxy- monosulphate) bis(sulphate)	70693-62-8		<0.3 (pH value: ~1, 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

### 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 3260

IMDG-Code UN 3260 ICAO-TI UN 3260

## 14.2 UN proper shipping name

UN RTDG CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. IMDG-Code CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

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Corrosive solid, acidic, inorganic, n.o.s.

Pentapotassium bis(peroxymonosulphate) bis(sulphate), Dipotassium disulphate Technical name (hazardous ingredients)

14.3 Transport hazard class(es)

**UN RTDG** 8

**IMDG-Code** 8

ICAO-TI 8

14.4 Packing group

**UN RTDG** Π

**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 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** 3260

8 Class **Packing group** II

Danger label(s) 8

Special provisions (SP) 274

**UN RTDG** 

**Excepted quantities (EQ)** 

**UN RTDG** 

Limited quantities (LQ) 1 kg

**UN RTDG** 

International Maritime Dangerous Goods Code (IMDG) - Additional information

Proper shipping name CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

Particulars in the shipper's declaration UN3260, CORROSIVE SOLID, ACIDIC, INORGANIC,

N.O.S., (contains: Pentapotassium bis(peroxymonosulphate) bis(sulphate), Dipotassium di-

sulphate), 8, II

Marine pollutant

Danger label(s) 8

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Special provisions (SP) 274

Excepted quantities (EQ) E2

Limited quantities (LQ) 1 kg

EmS F-A, S-B

Stowage category B

Segregation group 1 - Acids

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

Proper shipping name Corrosive solid, acidic, inorganic, n.o.s.

Particulars in the shipper's declaration UN3260, Corrosive solid, acidic, inorganic, n.o.s.,

(contains: Pentapotassium bis(peroxymonosulphate) bis(sulphate), Dipotassium disulphate),

8, II

Danger label(s) 8



Special provisions (SP)

Excepted quantities (EQ)

Limited quantities (LQ)

5 kg

# **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

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Country	Inventory	Status
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	not 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 CSCL-ENCS

DSL

ECSI IECSC

Chemical Inventory and Control Regulation
List of Existing and New Chemical Substances (CSCL-ENCS)
Domestic Substances List (DSL)
EC Substance Inventory (EINECS, ELINCS, NLP)
Inventory of Existing Chemical Substances Produced or Imported in China

National Inventory of Chemical Substances **INSQ** 

ISHĀ-ENCS Inventory of Existing and New Chemical Substances (ISHA-ENCS)

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 TSCA Taiwan Chemical Substance Inventory **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 dam- age 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: Pentapotassium bis(peroxymonosulphate) bis(sulphate), Dipotassium disulphate	Hazardous ingredients for labelling: Pentapotassium bis(peroxymonosulphate) bis(sulphate), Dipotassium disulphate, Potassi- um hydrogen sulphate, Potassium persulphate	yes
2.2	Labelling of packages where the contents do not exceed 125 ml: Signal word: Danger		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		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.2	contains: Pentapotassium bis(peroxymonosulphate) bis(sulphate), Dipotassium disulphate		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
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)
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)

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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
NLP	No-Longer Polymer
Ox. Sol.	Oxidising solid
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
Resp. Sens.	Respiratory sensitisation
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitisation
STEL	Short-term exposure limit
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).

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

Code	Text
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.

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Code	Text
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.

## Disclaimer

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

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