

Safety Data Sheet POTASSIUM POLYSULFIDE

SDS no. 2MGJNSBG • Version 1.0 • Date of issue: 2024-06-30

SECTION 1: Identification

GHS Product identifier

Product name POTASSIUM POLYSULFIDE

Other means of identification

Name Product Code

Liver of Sulfur
POTASSIUM POLYSULFIDE TG PT040

Recommended use of the chemical and restrictions on use

Medicine, fungicide, depilatory and laboratory reagent.

Supplier's details

Name ChemSupply Australia Pty Ltd
Address 38-50 Bedford Street
5013 Gillman South Australia
Australia

Telephone 08 8440 2000
email www.chemsupply.com.au

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Dangerous goods of Class 8 (Corrosive) are incompatible in a placard load with any of the following:
Class 1, Class 4.3, Class 5, Class 6, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids, Class 7; and are incompatible with food and food packaging in any quantity.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Hazardous to the aquatic environment, short-term (acute), Cat. 1
- Skin corrosion/irritation, Cat. 1B
- Serious eye damage/eye irritation, Cat. 1

GHS label elements, including precautionary statements

Pictograms



Signal word

Danger

Hazard statement(s)

H314
H400

Causes severe skin burns and eye damage
Very toxic to aquatic life

Precautionary statement(s)

P260
P273
P280
P301+P330+P331
P303+P361+P353

Do not breathe dust/fume/gas/mist/vapors/spray.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor/physician
Wash contaminated clothing before reuse.
Collect spillage.
Dispose of contents/container to an approved waste disposal facility

P304+P340
P305+P351+P338

P310
P363
P391
P501

SECTION 3: Composition/information on ingredients

Mixtures

[00] Information on Composition: Assay (K2S) > 42%.

Components

Component	CAS no.	Concentration
potassium polysulphides (EC no.: 253-390-1; Index no.: 016-007-00-7)	37199-66-9	100 - 100 % (weight)
CLASSIFICATIONS: Skin corrosion/irritation, Cat. 1B; Hazardous to the aquatic environment, short-term (acute), Cat. 1. HAZARDS: H314 - Causes severe skin burns and eye damage; H400 - Very toxic to aquatic life.		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice

For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor (at once).

If inhaled

If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Consult a physician.

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In case of skin contact	Immediately remove contaminated clothing and wash affected area with water for at least 15 minutes. Ensure contaminated clothing is washed before re-use. Seek medical advice /attention depending on the severity.
In case of eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. In all cases of eye contamination it is a sensible precaution to seek medical advice.
If swallowed	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Small fire: Use dry chemical, CO₂ or water spray. If safe to do so, move undamaged containers from the fire area.

Large fire: Use dry chemical, CO₂, foam or water spray - Do NOT use water jets.

Cool containers with flooding quantities of water until well after the fire is out. Avoid getting water inside the containers.

Specific hazards arising from the chemical

Hazards from Combustion Products: May liberate toxic fumes in fire (hydrogen sulfide gas and sulfur oxides).

Special protective actions for fire-fighters

Wear SCBA and chemical splash suit. Fully encapsulating, gas-tight suits should be worn for maximum protection. Structural firefighter's uniform is NOT effective for these materials.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks or flame) within at least 50m. Do NOT touch or walk through this product. Do NOT touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop leak if safe to do so. Prevent entry into waterways, drains, confined areas.

Cover with DRY earth, sand or other non-combustible material followed by plastic sheet to minimize spreading or contact with rain.
DO NOT GET WATER INSIDE CONTAINERS.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid ingestion and inhalation of material. Avoid contact with eyes, skin and clothing. Wash hands and face thoroughly after working with material.

Conditions for safe storage, including any incompatibilities

Store in cool place and out of direct sunlight. Store away from acids. Keep containers closed at all times. Keep container dry

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Hand Protection: Ensure hand protection complies with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection

Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection

Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Solid
Appearance	Reddish-brown when fresh changing to greenish-yellow with age.
Color	No data available.
Odor	Characteristic odour.
Odor threshold	No data available.
Melting point/freezing point	200 - 250 °C
Boiling point or initial boiling point and boiling range	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	> 200 C
Explosive properties	No data available.
Auto-ignition temperature	> 400 C
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	pH 13 (10g/l H ₂ O).
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Soluble. Solubility in Organic Solvents: Soluble in alcohol.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.

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Density and/or relative density
Relative vapor density
Particle characteristics

Specific Gravity: 1.65
No data available.
No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

No data available.

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Chemical stability

Stable; dust may form an explosive mixture with air; sensitive to heat.

Possibility of hazardous reactions

Contact with acids liberates toxic hydrogen sulfide gas.

Conditions to avoid

Exposure to moisture. Exposure to air. Incompatibles.

Incompatible materials

Strong acids, alcohols, strong oxidizing agents, strong reducing agents, combustible materials, most common metals, halogenated hydrocarbons.

Hazardous decomposition products

Hydrogen sulfide gas and sulfur oxides.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Ingestion: May be toxic by ingestion. Causes burns mucous membrane in the mouth, pharynx, oesophagus, gastrointestinal tract, due to hydrolysis of potassium sulfide, but greater danger is formation of hydrogen sulfide in the stomach and its absorption. Symptoms that occur may be similar to those of inhalation with diarrhea. Risk of perforation in the oesophagus and stomach.

Inhalation: Harmful if inhaled. May cause irritation to the respiratory tract. Symptoms include coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Inhalation may lead to the formation of oedemas in the respiratory tract.

Skin corrosion/irritation

Causes burns. Irritant, especially if hydrolysis occurs on moist skin. Harmful if absorbed through the skin.

Serious eye damage/irritation

Causes burns. Irritant, possibly corrosive or abrasive in acute cases. Conjunctivitis, photophobia, pain, blurred vision are symptoms.

Respiratory or skin sensitization

No data available

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Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

Summary of evaluation of the CMR properties

No data available.

Specific target organ toxicity (STOT) - single exposure

No data available.

Specific target organ toxicity (STOT) - repeated exposure

No data available.

Aspiration hazard

No data available.

Additional information

Production of poisonous hydrogen sulfide from reaction with acids or high temperature hydrolysis is a significant secondary hazard.

SECTION 12: Ecological information

Toxicity

Very toxic to aquatic life.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

UN Number: 3262

Class: 8

Packing Group: II

Proper Shipping Name: CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (Contains POTASSIUM POLYSULPHIDE)

Hazchem emergency action code (EAC)

2X

IMDG

UN Number: 3262

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IATA

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SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: NS

SECTION 16: Other information

Further information/disclaimer

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

Preparation information

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)