

## Safety Data Sheet POTASSIUM HYDROXIDE Solution >5%

SDS no. H3T2BJ27 • Date of issue: 2024-07-01

### SECTION 1: Identification

#### GHS Product identifier

Product name POTASSIUM HYDROXIDE Solution >5%

#### Recommended use of the chemical and restrictions on use

Manufacture of soaps, printing inks, paint and varnish removers, dyestuffs, liquid fertilizers and herbicides, electroplating, electrolyte in alkaline storage batteries and organic synthesis.

#### 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](http://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

- Acute toxicity, oral, Cat. 4
- Serious eye damage/eye irritation, Cat. 1
- Skin corrosion/irritation, Cat. 1A
- Corrosive to metals, Cat. 1

#### GHS label elements, including precautionary statements

#### Pictograms



**Signal word**

**Danger**

**Hazard statement(s)**

H290  
H302  
H314

May be corrosive to metals  
Harmful if swallowed  
Causes severe skin burns and eye damage

**Precautionary statement(s)**

P260  
P280  
P301+P312  
P301+P330+P331  
P303+P361+P353

Do not breathe dust/fume/gas/mist/vapors/spray.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell,  
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.  
Absorb spillage to prevent material-damage.  
Store in a corrosive resistant/... container with a resistant inner liner.  
Dispose of contents/container to an approved waste disposal facility

P304+P340  
P305+P351+P338

P310  
P363  
P390  
P406  
P501

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**SECTION 3: Composition/information on ingredients**

**Mixtures**

Molecular weight: 56.11

**Components**

Component	CAS no.	Concentration
<b>Water (EC no.: 231-791-2)</b>	<b>7732-18-5</b>	<b>55 - 95 % (weight)</b>
CLASSIFICATIONS: No data available. HAZARDS: No data available.		
<b>Potassium hydroxide (EC no.: 215-181-3; Index no.: 019-002-00-8)</b>	<b>1310-58-3</b>	<b>5 - 50 % (weight)</b>
CLASSIFICATIONS: Acute toxicity, oral, Cat. 4; Skin corrosion/irritation, Cat. 1A. HAZARDS: H302 - Harmful if swallowed; H314 - Causes severe skin burns and eye damage. [SCLs/M-factors/ATEs]: Skin Corr. 1A; H314: C ≥ 5 %; Skin Corr. 1B; H314: 2 % ≤ C < 5 %; Skin Irrit. 2; H315: 0,5 % ≤ C < 2 %; Eye Irrit. 2; H319: 0,5 % ≤ C < 2 %		

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**SECTION 4: First-aid measures**

**Description of necessary first-aid measures**

General advice

Advice to Doctor: Burns are not immediately painful, onset of pain may be minutes to hours.

If inhaled

If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Immediately medical attention is required.

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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	If contact with the eye(s) occurs, wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. Seek medical attention.
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.

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## SECTION 5: Fire-fighting measures

#### Suitable extinguishing media

Use fire extinguishing media appropriate for surrounding environment. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

#### Specific hazards arising from the chemical

Hazards from Combustion Products: May liberate toxic fumes in fire (oxides of carbon).

Material does not burn. Fire or heat will produce irritating, poisonous and/or corrosive gases. Containers may explode when heated.

#### 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.

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## SECTION 6: Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

Avoid inhalation, contact with skin, eyes and clothing. Evacuate the area of all non-essential personnel.

#### Methods and materials for containment and cleaning up

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.

Spillages are very slippery.

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## SECTION 7: Handling and storage

#### Precautions for safe handling

Avoid prolonged or repeated contact with skin, eyes and clothing . Avoid breathing vapour, spray or mists. Use in well ventilated areas away from all ignition sources. In case of insufficient ventilation, wear suitable respiratory equipment. Wash hands and face thoroughly after working with material.

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

Store in a cool, dry place. Keep containers securely sealed and protected against physical damage. Avoid direct sunlight, heat sources, and strong oxidizing agents. Store away from foodstuffs.

Do not store in aluminium or galvanised containers or use die-cast zinc or aluminium bungs. Steel bungs should be used. Reacts exothermically on dilution with water. Keep containers closed at all times - check regularly for leaks.

Corrosive to aluminum, tin and zinc. Corrosive to steel at elevated temperatures.

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## 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

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

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 vapours or mists. Select and use respirators in accordance with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. When mists or vapours exceed the exposure standards then the use of the following is recommended: Approved respirator with organic vapour and dust/mist filters. Filter capacity and respirator type depends on exposure levels.

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## SECTION 9: Physical and chemical properties

#### Basic physical and chemical properties

Physical state	Liquid
Appearance	Clear colourless, slightly hazy solution.
Color	No data available.
Odor	Odourless.
Odor threshold	No data available.
Melting point/freezing point	No data available.
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	No data available.
Explosive properties	No data available.

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Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	pH of 1% aqueous solution: ~13
Kinematic viscosity	Viscosity: 8.836 cP (20 °C)
Solubility	Solubility in Water: Soluble (20 °C) Solubility in Organic Solvents: Soluble in methanol.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 50% w/w approx 1.50 25% w/v approx 1.236
Relative vapor density	No data available.
Particle characteristics	No data available.

#### Supplemental information regarding physical hazard classes

No data available.

#### Further safety characteristics (supplemental)

Refractive index: 1.421

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## SECTION 10: Stability and reactivity

#### Reactivity

Stable under normal conditions of storage and handling.

#### Chemical stability

Stable. Absorbs carbon dioxide from the air.

#### Possibility of hazardous reactions

May react explosively with maleic anhydride and nitro and chloro organic compounds. In contact with metals, may produce flammable and explosive hydrogen gas. May react with organohalogen compounds to form spontaneously combustible compounds. Violent reaction with acids, yielding heat and pressure which can burst an enclosed container.

Hazardous Polymerization: Will not occur.

#### Conditions to avoid

Exposure to moisture. High temperatures. Incompatibles.

#### Incompatible materials

Strong acids, acetone, aluminium, ammonium compounds, alkaline earth metals, chlorinated hydrocarbons, halogens and halogenated compounds, metals, anhydride, strong oxidizing agents and nitro organic compounds. Glass, metals and various plastics.

#### Hazardous decomposition products

Potassium oxides.

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## SECTION 11: Toxicological information

#### Information on toxicological effects

##### Acute toxicity

Acute Toxicity - Oral: LD50 (rat): 273 mg/kg (pure substance).

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Ingestion: Harmful if swallowed. Corrosive to mucous membranes and may cause perforation of the esophagus and stomach. Abdominal pain, nausea, vomiting, general gastro-intestinal upset can be expected.

Inhalation: Respiratory tract irritant, causes serious burns on acute contact. Severe injury is usually avoided by the self-limiting coughing, wheezing, shortness of breath and sneezing symptoms. May lead to spasms, inflammation and edema of the larynx/bronchi, pneumonitis, pulmonary edema and burning sensation.

// ----- From the Suggestion report (23/07/2024, 8:22 AM) ----- //

The ATE (oral) of the mixture is: 1000 mg/kg bw

#### **Skin corrosion/irritation**

Causes skin burns and irritation upon contact. Soreness, redness, destruction of skin may result.

#### **Serious eye damage/irritation**

Causes eye burns and irritation upon contact. Tearing, redness, pain, impaired vision are symptoms. Risk of blindness! Risk of corneal clouding!

#### **Respiratory or skin sensitization**

No data available

#### **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**

Chronic Effects: Development of a defatting dermatitis on prolonged contact with potassium hydroxide has been reported. Continued irritation may lead to increased susceptibility to respiratory illness.

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## **SECTION 12: Ecological information**

#### **Toxicity**

Harmful to aquatic life due to pH shift.

Avoid contaminating waterways.

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## **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.

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## **SECTION 14: Transport information**

### **ADG (Road and Rail)**

UN Number: 1814

Class: 8

Packing Group: II

Proper Shipping Name: POTASSIUM HYDROXIDE SOLUTION

### **Hazchem emergency action code (EAC)**

2R

### **IMDG**

UN Number: 1814

Class: 8

Packing Group: II

EMS Number:

Proper Shipping Name: POTASSIUM HYDROXIDE SOLUTION

### **IATA**

UN Number: 1814

Class: 8

Packing Group: II

Proper Shipping Name: POTASSIUM HYDROXIDE SOLUTION

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## **SECTION 15: Regulatory information**

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

#### **Australia SUSMP**

Poison Schedule: S6

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## **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.

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#### Preparation information

All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. ChemSupply Australia Pty Ltd accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.

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](http://hcis.safeworkaustralia.gov.au)

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)