



Infosafe No™	1CH5H	Issue Date : September 2019	RE-ISSUED by CHEMSUPP
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Product Name : **POTASSIUM HYDROXIDE**

Classified as hazardous

**1. Identification**

**GHS Product Identifier** POTASSIUM HYDROXIDE

**Company Name** CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)

**Address** 38 - 50 Bedford Street GILLMAN  
SA 5013 Australia

**Telephone/Fax Number** Tel: (08) 8440-2000  
Fax: (08) 8440-2001

**Emergency phone number** CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

**Recommended use of the chemical and restrictions on use** Soap manufacture, bleaching, paint removers, food additive, dyestuffs, liquid fertilizers, manufacture of potassium carbonate and tetrapotassium pyrophosphate, electrolyte in alkaline storage batteries and some fuel cells, absorbent for carbon dioxide and hydrogen sulfide, herbicides, electroplating, printing inks, photoengraving and lithography, mordant for wood, mercerizing cotton, organic synthesis, analytical chemistry and laboratory reagent.

Other Names	Name	Product Code
	POTASSIUM HYDROXIDE Pellet LR	PL161
	POTASSIUM HYDROXIDE Flake LR	PL012
	POTASSIUM HYDROXIDE Pellet AR	PA161
	Caustic potash, Potassium hydrate, Lye	
	POTASSIUM HYDROXIDE EP/BP Pellet	PP324

**Other Information**

Chem-Supply 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 Chem-Supply 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 Chem-Supply 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.

**2. Hazard Identification**

**GHS classification of the substance/mixture** Corrosive to Metals: Category 1  
Acute Toxicity - Oral: Category 4  
Skin Corrosion/Irritation: Category 1A

**Signal Word (s)** DANGER

**Hazard Statement (s)** H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.

**Pictogram (s)** Corrosion, Exclamation mark

**Precautionary statement – Prevention**

P234 Keep only in original container.  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P264 Wash thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary statement – Response**

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P310 Immediately call a POISON CENTER or doctor/physician.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,



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**Precautionary statement – Storage** if present and easy to do. Continue rinsing.  
P363 Wash contaminated clothing before reuse.  
**Precautionary statement – Disposal** P390 Absorb spillage to prevent material damage.  
P404 Store in a closed container.  
P406 Store in corrosive resistant/... container with a resistant inner liner.  
P501 Dispose of contents/container to an approved waste disposal plant.

**3. Composition/information on ingredients****Chemical** Solid**Characterization****Ingredients**

<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>
Potassium hydroxide	1310-58-3	100 %		

**4. First-aid measures**

**Inhalation** 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.

**Ingestion** Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.

**Skin** 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.

**Eye contact** If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek immediate medical assistance.

**First Aid Facilities** Maintain eyewash fountain and safety shower in work area.

**Advice to Doctor** Treat symptomatically as for strong alkalis.

**Other Information** Burns are not immediately painful, onset of pain may be minutes to hours.  
For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

**5. Fire-fighting measures**

**Hazards from Combustion Products** May liberate toxic fumes in fire (Carbon and potassium oxides).

**Specific Methods** Use extinguishing media most appropriate for the surrounding fire.  
Small fire: Use dry chemical, CO2 or water spray.  
Large fire: Use water spray, fog or foam - Do NOT use water jets.  
If safe to do so, move undamaged containers from the fire area. 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** Material does not burn. Fire or heat will produce irritating, poisonous and/or corrosive gases. Contact with metals may evolve flammable hydrogen gas.

**Hazchem Code** 2W

**Precautions in connection with Fire** 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.

**6. Accidental release measures**

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

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

**Clean-up Methods - Small Spillages** Sweep up (avoid generating dust) and remove to a suitable, clearly labelled container for disposal in accordance with local regulations.

**Clean-up Methods - Large Spillages** Seek expert advice on handling and disposal.  
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



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**Environmental Precautions** spreading or contact with rain.  
DO NOT GET WATER INSIDE CONTAINERS.  
Use appropriate containment to avoid environmental contamination.

**7. Handling and storage**

**Precautions for Safe Handling** Avoid generation or accumulation of dusts. Avoid prolonged or repeated contact with skin and eyes . Wash hands and face thoroughly after working with material. Contaminated clothing should be removed and washed before reuse. Use in well ventilated areas. In case of insufficient ventilation, wear suitable respiratory equipment.

When diluting or preparing solution, add caustic to water slowly in small amounts to avoid boiling and splattering. Never use hot water!

**Conditions for safe storage, including any incompatibilities** Store in a cool, dry place. Keep containers securely sealed and protected against physical damage. Store away from acids. Hygroscopic. Keep only in original container.

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

**Storage Regulations** Refer Australian Standard AS 3780 - 1994 'The storage and handling of corrosive substances'.

**8. Exposure controls/personal protection**

Occupational exposure limit values	Name	STEL		TWA		Footnote
		mg/m3	ppm	mg/m3	ppm	
	Potassium hydroxide			2		peak limitation
<b>Other Exposure Information</b>	These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity. TWA: 2 mg/m3 - peak limitation - potassium hydroxide - Safe Work Australia. Peak Limitation - a ceiling concentration which should not be exceeded over a measurement period which should be as short as possible but not exceeding 15 minutes.					
<b>Appropriate engineering controls</b>	In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. These methods should be used in preference to personal protective equipment.					
<b>Respiratory Protection</b>	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.					
<b>Eye Protection</b>	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.					
<b>Hand Protection</b>	Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste. Recommendation: Rubber or plastic gloves.					
<b>Personal Protective Equipment</b>	Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.					
<b>Footwear</b>	Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.					
<b>Body Protection</b>	Clean clothing or protective clothing should be worn, preferably with and apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.					
<b>Hygiene Measures</b>	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.					



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**9. Physical and chemical properties**

<b>Form</b>	Solid
<b>Appearance</b>	White flakes or pellets.
<b>Odour</b>	Odourless.
<b>Melting Point</b>	360 °C
<b>Boiling Point</b>	1320 °C
<b>Solubility in Water</b>	Soluble~1,130 g/L at 20°C.
<b>Solubility in Organic Solvents</b>	Soluble in alcohol and glycerol. Insoluble in ether.
<b>Specific Gravity</b>	2.044 @ 20 °C
<b>pH</b>	pH ~ 14 (50 g/l H <sub>2</sub> O).
<b>Vapour Pressure</b>	1 hPa (1 mmHg, @ 719 °C, 1326 °F). 1 hPa (1 mmHg, @ 714 °C, 1317 °F).
<b>Flammability</b>	Non combustible material.
<b>Molecular Weight</b>	56.11

**10. Stability and reactivity**

<b>Chemical Stability</b>	Stable under normal use conditons. Absorbs water and carbon dioxide from the air.
<b>Conditions to Avoid</b>	Exposure to moisture. Heat, flames, ignition sources and incompatibles.
<b>Incompatible Materials</b>	Acids, azides, ammonium compounds, anyhydride compounds, copper, chloro organic compounds, flammable liquids, halogens, halogenated compounds, magnesium, metals and light metals, maleic anhydride, nitro compounds, organic materials, organohalogen compounds, water.
<b>Hazardous Decomposition Products</b>	Carbon monoxide when reacting with carbohydrates and hydrogen gas when reacting with aluminium, zinc, and tin. Thermal oxidation can produce toxic fumes of potassium oxide.
<b>Possibility of hazardous reactions</b>	Contact with water, acids, flammable liquids, and organic halogen compounds (i.e. trichloroethylene) may risk of explosion or violent reaction, yielding heat and pressure which can burst an enclosed container. Contact with nitro compounds (i.e. nitromethane) can cause formation of shock sensitive salts. Contact with metals (i.e. aluminium, zinc, copper, magenisum, etc.), may produce formation of flammabe hydrogen gas. Exothermic dissolution.
<b>Hazardous Polymerization</b>	Will not occur.

**11. Toxicological Information**

<b>Ingestion</b>	Harmful if swallowed. Ingestion of flakes or pellets varies in degree of irritation depending on exposure. May cause violent pain in throat, vomiting, diarrhea, hematemesis, collapse and possible death. May cause perforation and burns of the digestive tract (oesophagus and stomach). If not immediately fatal, stricture of esophagus may develop.
<b>Inhalation</b>	Inhalation of dust or mist varies in degree of irritation depending on exposure. Irritation of the nose, throat and lungs with symptoms include sneezing, coughing, damage to the nasal or respiratory tract. High concentrations can cause lung damage (i.e. chemical pneumonitis).
<b>Skin</b>	Extremely corrosive. May cause severe burns with deep ulceration. Burns are not immediately painful, onset of pain may be minutes to hours.
<b>Eye</b>	Extremely corrosive. May penetrate deeply, causing severe burns. In severe cases, ulceration and permanent blindness may occur.
<b>Carcinogenicity</b>	No evidence of carcinogenic properties.
<b>Mutagenicity</b>	No evidence of mutagenic properties.

**12. Ecological information**

<b>Persistence and degradability</b>	Methods for the determination of biodegradability are not applicable to inorganic substances.
<b>Biological Properties</b>	Harmful due to pH shift.

**13. Disposal considerations**



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<b>Disposal Considerations</b>	Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.
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**14. Transport information**

<b>Transport Information</b>	Dangerous Goods of Class 8 Corrosives 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 and Class 7.
<b>U.N. Number</b>	1813
<b>UN proper shipping name</b>	POTASSIUM HYDROXIDE, SOLID
<b>Transport hazard class(es)</b>	8
<b>Hazchem Code</b>	2W
<b>Packaging Method</b>	3.8.8
<b>Packing Group</b>	II
<b>EPG Number</b>	8A1
<b>IERG Number</b>	37

**15. Regulatory information**

<b>Regulatory Information</b>	Listed in the Australian Inventory of Chemical Substances (AICS).
<b>Poisons Schedule</b>	S6

**16. Other Information**

<b>Literature References</b>	'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley and Sons, Inc., NY, 1997. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.', 2007. Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', 2011. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand, 2010. Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]'. Safe Work Australia, 'Hazardous Chemical Information System, 2005'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances (2011)'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995) 3rd Edition]'.
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<b>Contact Person/Point</b>	Paul McCarthy Ph. (08) 8440 2000 <b>DISCLAIMER STATEMENT:</b> 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. Chem-Supply 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.
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<b>Empirical Formula &amp; Structural Formula</b>	KOH ...End Of MSDS...
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