Infosafe No™	1CH5H	Issue Date : September 2019	RE-ISSUED by CHEMSUPP

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)

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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,

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

3. Composition/information on ingredients

Chemical Characterization Solid

Ingredients

Name	CAS	Proportion	Hazard Symbol	Risk Phrase
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. Burns are not immediately painful, onset of pain may be minutes to hours.
Other Information	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 librate 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

	spreading or contact with rain. DO NOT GET WATER INSIDE CONTAINERS.
Environmental Precautions	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 incompatabilities	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		
	mg/m3	ppm	mg/m3	ppm	Footnote
Potassium hydroxide			2		peak limitation

Other Exposure Information	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.
Appropriate engineering controls	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.
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.
Eye 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.
Hand Protection	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.
Personal Protective Equipment	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.
Footwear	Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.
Body Protection	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.
Hygiene Measures	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

9. Physical and chemical properties

Form	Solid
Appearance	White flakes or pellets.
Odour	Odourless.
Melting Point	360 °C
Boiling Point	1320 °C
Solubility in Water	Soluble~1,130 g/L at 20°C.
Solubility in Organic Solvents	Soluble in alcohol and glycerol. Insoluble in ether.
Specific Gravity	2.044 @ 20 °C
pH	pH ~ 14 (50 g/l H2O).
Vapour Pressure	1 hPa (1 mmHg, @ 719 °C, 1326 °F). 1 hPa (1 mmHg, @ 714 °C, 1317 °F).
Flammability	Non combustible material.
Molecular Weight	56.11

10. Stability and reactivity

Chemical Stability	Stable under normal use conditons. Absorbs water and carbon dioxide from the air.
Conditions to Avoid	Exposure to moisture. Heat, flames, ignition sources and incompatibles.
Incompatible Materials	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.
Hazardous Decomposition Products	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.
Possibility of hazardous reactions	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.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Ingestion	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.
Inhalation	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).
Skin	Extremely corrosive. May cause severe burns with deep ulceration. Burns are not immediately painful, onset of pain may be minutes to hours.
Eye	Extremely corrosive. May penetrate deeply, causing severe burns. In severe cases, ulceration and permanent blindness may occur.
Carcinogenicity	No evidence of carcinogenic properties.
Mutagenicity	No evidence of mutagenic properties.

12. Ecological information

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

13. Disposal considerations

Disposal Considerations	Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

14. Transport information

Transport Information	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.
U.N. Number	1813
UN proper shipping name	POTASSIUM HYDROXIDE, SOLID
Transport hazard class(es)	8
Hazchem Code	2W
Packaging Method	3.8.8
Packing Group	II
EPG Number	8A1
IERG Number	37

15. Regulatory information

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

16. Other Information

Literature References	'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 fot 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]'.
Contact Person/Point	Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT: 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.
Empirical Formula & Structural Formula	KOH

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