

Caustic Potash Liquid 48% w/w

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND SUPPLIER

Product name: Caustic Potash Liquid 48% w/w
Recommended Use: Additive for manufacturing and pH control

Supplier: Hygiene Technologies Ltd
Street Address: 28 Rangitane Rd
 Whakatu, Hastings 4172
 New Zealand

Telephone: + 64 6 876 4111 or 0800 732 525

Emergency:
Telephone number: National Poisons Centre (24/7) - **0800 POISON** (0800 764 766)

2. HAZARDS IDENTIFICATION

This product is classified as a Dangerous Good according to NZS 5433:2020
 Transport of Dangerous Goods on Land

Hazardous Substances Classified as hazardous according to criteria in GHS 7

Signal Word
 DANGER



Group Standard 2020 HSR002491

Hazard Classifications

Corrosive to Metals – Category 1
 Acute Toxicity (Oral) – Category 4
 Skin Corrosion – Category 1B
 Serious Eye Damage - Category 1

Hazard Statements

H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.

Prevention Precautionary Statements

P102 Keep out of reach of children.
P103 Read carefully and follow all instructions.
P234 Keep only in original packaging.
P260 Do not breathe dusts or mists
P264 Wash hands, face and all exposed skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves and protective clothing including eye and face protection.

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Response Precautionary Statements

- P101** If medical advice is needed, have product container or label at hand.
- P301+P312** IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.
- P301+P330+P331** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P363** Wash contaminated clothing before reuse.
- P303+P361+P353** IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water or shower.
- P304+P340** IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P310** Immediately call a POISON CENTRE or doctor.
- P321** Specific treatment (see Section 4 of this SDS).
- P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P390** Absorb spillage to prevent material damage.

Storage Precautionary Statement

- P405** Store locked up.
- P406** Store in corrosive resistant container with a resistant inner liner.

Disposal Precautionary Statement

- P501** Dispose of contents/container in accordance with local, regional, national and international regulations.

General

- P102** Keep out of reach of children.
- P103** Read carefully and follow all instructions.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL ENTITY	CAS No.	PROPORTION
Potassium hydroxide	1310-58-3	30 – 60% (w/w)
Ingredients determined to be Non-Hazardous the concentration used.		Balance

4. FIRST AID MEASURES

For advice, contact National Poisons Information Centre (Phone 0800 764 766) or a doctor If medical advice is needed, have product container or label at hand.

- Swallowed** Rinse mouth and then drink a glass of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs, give further water. Immediately call a POISON CENTRE or doctor for advice.
- Eye Contact** Immediately rinse cautiously with copious volumes of water for 15 minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE or doctor for advice. Transport to hospital or medical centre without delay.

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Skin Contact	If skin or hair irritation occurs, remove all contaminated clothing and flush skin and hair with running water for at least 15 minutes. For minor skin contact, avoid spreading material on to unaffected skin. If swelling, redness, blistering or irritation occurs seek medical assistance. For gross contamination, immediately drench contaminated skin and clothing with plenty of water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is soluble). For skin burns, cover with a clean, dry dressing until medical help is available. Immediately call a POISON CENTRE or doctor for advice. Wash contaminated clothing before reuse.
Inhaled	Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a Poison Centre or doctor for advice. Allow person to assume most comfortable position and keep at rest until fully recovered. Seek medical advice if effects persist. If breathing has stopped, apply artificial respiration at once. Do not use mouth-to-mouth method if person ingested or inhaled the substance; use alternative respiratory method or proper respiratory device. Seek urgent medical attention.

Refer to National Poisons and Hazardous Chemicals Information Centre 0800 764 766.

5. FIRE FIGHTING MEASURES

Specific Hazard	Containers may explode when heating. Contact with metals may evolve flammable hydrogen gas.
Suitable Extinguishing Media	If material is involved in a fire, use dry chemical, carbon dioxide, foam or water spray for extinction.
Fire/Explosion Hazards	Non-combustible, material itself does not burn. However following evaporation of aqueous component, residual material can decompose if involved in a fire, emitting toxic fumes including potassium oxide. If safe to do so, remove containers from path of fire. Fire fighters to wear self-contained breathing apparatus (SCBA) and chemical splash suit if risk of exposure to products of decomposition. Fully-encapsulating, gas-tight suits should be worn for maximum protection. Structural fire fighter's uniform is NOT effective for this material.

HAZCHEM CODE 2R

6. ACCIDENTAL RELEASE MEASURES

Contain minor spills (less than 100L) from local drainage with any suitable bund or barrier. Soak up spilled product using absorbent, non-combustible material such as earth or sand. Avoid using sawdust or cellulose. When saturated, collect material into suitable, clearly labeled, dry, sealable containers and hold for safe disposal. Once pick up is complete, flush spill site with plenty of water to eliminate any residue.

For large spills from drums and IBCs, alert the local Fire Brigade. Pump-off recoverable product. Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Ensure adequate ventilation. Work up wind or increase ventilation. Eliminate all ignition sources. Do not touch or walk through spilled material. Do not breathe vapours and avoid contact with skin and eyes. Stop leak if safe to do so. Prevent entry into waterways, drains or confined areas. Cover with plastic sheet to prevent spreading or use absorbent (earth, sand or other non-combustible material). If contamination of sewers or waterways has occurred, advise local emergency services. Collect absorbed material in suitable containers which can be closed and sent to landfill. Neutralise residues with dilute acid. Wash area down with excess water. Hold any contaminated water for disposal by a waste disposal contractor. If material does contaminate crops, sewers or waterways, alert local emergency services.

7. HANDLING AND STORAGE

Handling advice	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Do not breathe vapours or spray. Prevent contact with eyes, skin and clothing. Wear protective gloves, protective clothing and eye and face protection (see Section 8). Avoid contact with incompatible materials.
Storage advice	Store in a cool, dry and well-ventilated area, away from direct sunlight, heat sources, incompatible materials and food stuffs. Store locked up in corrosive resistant container with a resistant inner liner. Protect from water/moisture. Ensure containers are correctly labelled, protected from physical damage, sealed when not in use and stored upright. Keep containers closed when not in use. Check regularly for leaks, spills etc. Keep out of reach of children. Store locked up in original packaging as approved by manufacturer.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Workplace Exposure Guidelines	No value assigned for this specific material by the NZ Occupational Safety and Health Services (OSH). For component:
Potassium hydroxide (CAS No. 1310-58-3)	<ul style="list-style-type: none"> - Safe Work Australia Exposure Standard: TWA = 2 mg/m³ peak limitation. - New Zealand Workplace Exposure Standard: TWA = 2 mg/m³ ceiling. - NIOSH REL = 2 mg/m³
Engineering Controls	A system of local and/or general exhaust is recommended to keep employee exposure as low as possible.
Personal Protective Equipment	Wear elbow length, protective gloves (e.g., butyl rubber, natural rubber, nitrile rubber, neoprene or PVC), appropriate eye protection (i.e., chemical goggles as primary protection with the supplementary use of a face shield), overalls and splash apron (or equivalent chemical impervious outer garment) and rubber boots. Always wash hands before smoking, eating, drinking or using the toilet. When handling do not eat, drink or smoke. Wash contaminated clothing and other protective equipment before storage or reuse. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid
Colour	Transparent, opaque
Odour	Odourless
pH	>=12
Freezing Point	4.4°C
Boiling Point / Range (°C)	143°C (50% soln)
Flash Point (°C)	N App
Vapour Pressure	2.5 mmHg (@ 20°C)
Specific Gravity	1.516
Solubility	Miscible with water
Viscosity	6.0 cP (A 15.6°C)

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(Typical values only – consult specification sheet)

N Av = Not available, N App = Not applicable

10. STABILITY AND REACTIVITY

Stability	This material is thermally stable when stored and used as directed.
Conditions to avoid	Elevated temperatures and sources of ignition.
Incompatible Materials	Acids, metals, halocarbon compounds, oxidisers, ammonium salts, reducing agents and combustible materials.
Reactivity	Reacts violently with acid and is corrosive to metals such as aluminium, tin, lead and zinc. Reacts with ammonium salts, producing ammonia and generates a fire hazard. Contact with moisture and water may generate sufficient heat to ignite combustible materials.
Hazardous Decomposition Products	Fire or heat will produce irritating, toxic and/or corrosive gases, including potassium.
Products oxide	Contact with metals may evolve flammable hydrogen gas.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

ACUTE EFFECTS

Swallowed	Harmful if swallowed. Corrosive on ingestion resulting in abdominal pain, burns to the mouth and throat, burning sensation in the throat and chest, nausea, vomiting, shock or collapse.
Eye Contact	Corrosive to eyes. Contact with eyes will result in serious eye damage including redness, pain, blurred vision and severe corneal burns. Contamination of eyes can result in permanent injury.
Skin Contact	Corrosive to skin. Contact with skin will result in severe, deep penetrating burns and necrosis.
Inhaled	Material may be corrosive to mucous membranes and respiratory tract.
Long Term Effects	No information available for the product.
Toxicological Data	Acute toxicity (Oral): COMPONENT: Potassium hydroxide (CAS No. 1310-58-3): - LD50, Rat: 333 mg/kg bw

12. ECOTOXICOLOGICAL INFORMATION

Aquatic toxicity	Avoid contaminating waterways. Aquatic toxicity: <ul style="list-style-type: none">- LC50, Fish (<i>Gambusia affinis</i>): 80 mg/L (96 h)- EC50, Crustacea (<i>Daphnia magna</i>): 660 mg/L (48 h)- EC50, Algae/aquatic plants (<i>Nitscheria linearis</i>): 1,337 mg/L (120 h)
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Persistence and	Ready biodegradation
Environmental Fate	Prevent entry into drains and waterways.
Bioaccumulation Potentia	- BCF: 3.162 - log Kow: -3.88

13. DISPOSAL CONSIDERATIONS

Recycle wherever possible. Whatever cannot be saved for recovery or recycling should be sent to an approved waste disposal contractor for disposal in an approved waste facility. Processing, use or contamination of this product may change the waste management options. Dispose of container and unused contents using an approved waste disposal contractor. Care should be taken to ensure compliance with national and local regulations. This product is NOT for unauthorised disposal by either landfill or via municipal sewers. Not to be discharged to drains, natural streams or rivers.

Special Precautions: Empty drums should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Observe all safeguards on label and in this SDS until container is cleaned, reconditioned or destroyed. Decontaminate empty containers with water. Dispose of container and unused contents in accordance with local authority requirements.

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT

Classified as a Dangerous Good according to NZS 5433:2020 Transport of Dangerous Goods on Land.



UN Number:	1814
Dangerous Goods Class:	8
Packing Group:	II
Hazchem Code:	2R
Emergency Response	154
Guide No:	
Proper Shipping Name:	POTASSIUM HYDROXIDE SOLUTION

Segregation Dangerous Goods: Not to be loaded with explosives (Class 1), dangerous when wet substances (Class 4.3), oxidising agents (Class 5.1), organic peroxides (Class 5.2), radioactive substances (Class 7) or food and food packaging in any quantity. Note 1: Concentrated strong alkalis are incompatible with concentrated strong acids. Note 2: Concentrated strong acids are incompatible with concentrated strong alkalis. Note 3: Acids are incompatible with Dangerous Goods of Class 6 which are cyanides. Exemptions may apply.

MARINE TRANSPORT

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.



UN Number:	1824
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Dangerous Goods Class: 8
Packing Group: II
Proper Shipping Name: POTASSIUM HYDROXIDE SOLUTION

AIR TRANSPORT

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.



UN Number: 1824
Dangerous Goods Class: 8

Packing Group: II
Proper Shipping Name: POTASSIUM HYDROXIDE SOLUTION

15. REGULATORY INFORMATION

ERMA (NZ) Approval Code N/A
Group Standard 2020 HSR002491
For more information refer to the ERMA website: www.epa.govt.nz

16. OTHER INFORMATION

Revision 4
Revision Date 24 August 2024
Reason for Issue Regular review
Review 24 August 2029

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