

TECH 545

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND SUPPLIER

Product name: TECH 545
Recommended Use: Concentrate CIP alkaline cleaner

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 HSR002526

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, vapours or spray.
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 clothing, gloves, eye/face protection and suitable respirator.

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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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL ENTITY	CAS No.	PROPORTION
Sodium hydroxide	1310-73-2	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.
- 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.

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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 Non-combustible material.

Suitable Extinguishing Media If material is involved in a fire, use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam or dry agent (carbon dioxide or dry chemical powder).

Fire/Explosion Hazards Non-combustible, material itself does not burn. 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. Do not breathe dusts, vapours or spray. Prevent contact with eyes and skin. Wear protective gloves, protective clothing and eye and face protection (see Section 8). Avoid contact with incompatible materials.

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Storage advice Store in a cool, dry and well-ventilated area, away from direct sunlight, heat sources, incompatible materials (described in Section 10) and food stuffs. Store locked up in corrosive resistant container with a resistant inner liner. Ensure containers are correctly labelled, protected from physical damage, sealed when not in use and stored upright. Check containers regularly for leaks.

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:

Sodium hydroxide (CAS No. 1310-73-2)

- Safe Work Australia Exposure Standard: TWA = 2 mg/m³ peak limitation.
- New Zealand Workplace Exposure Standard: TWA = 2 mg/m³ ceiling.

Engineering Controls Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well-ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator.

Personal Protective Equipment OVERALLS, CHEMICAL GOGGLES, GLOVES, RUBBER BOOTS, APRON.
Personal protective equipment (PPE) must be suitable for the nature of the work and any hazard associated with the work as identified by a risk assessment.

Wear overalls, chemical goggles, gloves, rubber boots and an apron. A face shield can be used for supplementary protection of the face, however never for primary protection of the eyes. Available information suggests that gloves made from butyl rubber, natural rubber, nitrile rubber, neoprene or PVC should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. 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	Pale yellow
Odour	Odourless
pH	13-14
Freezing Point	N Av
Boiling Point / Range (°C)	N Av
Flash Point (°C)	N App
Vapour Pressure	2.3 kPa (water)
Specific Gravity	1.46 – 1.47
Solubility	Soluble in water
Viscosity	N Av
Relative Vapour Density (air=1)	<1

(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, ammonium salts, aluminium, tin, zinc and brass.
Reactivity	Reacts violently with acids. React exothermically on dilution with water.
Hazardous Decomposition Products	Oxides of carbon and nitrogen, smoke and other toxic fumes.

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:

Swallowed	Harmful if swallowed. Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.
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	<p>Inhalation</p> <p>This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredient/s): Sodium hydroxide (CAS no. 1310-73-2):</p> <p>- LC50 > 20.0 mg/L for vapours or LC50 > 5.0 mg/L for dust and mist or LC50 > 5,000 ppm gas</p> <p>Ingestion</p> <p>This material has been classified as Acute Toxicity (Oral) – Category 4.</p> <p>Acute toxicity estimate (based on ingredient/s): 300 – 2,000 mg/Kg bw</p>

12. ECOTOXICOLOGICAL INFORMATION

Aquatic toxicity	Acute Aquatic Toxicity – Category 2. Toxic to aquatic life. Avoid release to the environment. Acute toxicity estimate (based on ingredient/s): 1 – 10 mg/L
Ecotoxicity	No information available
Bioaccumulation Potential	No information available

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Mobility No information available

Persistence and Degradability No information available

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: 1824
Dangerous Goods Class: 8
Packing Group: II
Hazchem Code: 2R
Emergency Response 154
Guide No:
Proper Shipping Name: SODIUM 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

SAFETY DATA SHEET



Dangerous Goods Class: 8

Packing Group: II
Proper Shipping Name: SODIUM 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: SODIUM HYDROXIDE SOLUTION

15. REGULATORY INFORMATION

ERMA (NZ) Approval Code N/A
Group Standard 2020 HSR002526 – Cleaning Products (Corrosive) Group Standard
For more information refer to the ERMA website: www.epa.govt.nz

16. OTHER INFORMATION

Revision 2
Revision Date 13 September 2024
Reason for Issue Regular review
Review 13 September 2029

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