

SAFETY DATA SHEET

Hazardous Chemical, Dangerous Goods

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: TENAX ULTRA
Recommended Use: Heavy Duty Alkaline Cleaner

Supplier: Hygiene Technologies Ltd
Street Address: 28 Rangitane Rd
Whakatu, Hastings 4102
New Zealand

Telephone: + 64 6 876 4111 or 0800 732 525
Facsimile: + 64 6 878 3802

Emergency Telephone number: New Zealand Poisons Centre
0800 POISON (0800 764 766)

2. HAZARDS IDENTIFICATION

This substance is hazardous according to the HSNO (Minimum Degrees of Hazard) Regulations 2001 – Reprinted 2017. This substance is hazardous according to the criteria of Safe Work Australia.

This substance is classified as a dangerous good for Land Transport in New Zealand according to NZS5433: 2020. This substance is classified as a dangerous good for Land Transport according to the Australian Code for Transport of Dangerous Goods.



Signal Word

Danger

Hazard Classifications

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

Hazard Statements

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

SAFETY DATA SHEET

Prevention Statements:

- P102** Keep out of reach of children
- P103** Read label before use
- P234** Avoid breathing dust.
- P260** Do not breathe mist, vapours, or spray.
- P264** Wash hands thoroughly after handling.
- P270** Do not eat, drink, eat, or smoke when using this product.
- P280** Wear protective gloves, protective clothing, eye and/or face protection.

Response Statements:

- P101** If medical advice is needed, have product container or label at hand
- P301+P330+**
P331+P312 IF SWALLOWED: Rinse mouth. Do not induce vomiting. Call a doctor if you feel unwell.
- P303+P361+**
P353+P312 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Call a POISON CENTER or physician if you feel unwell.
- P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310** Immediately call a POISON CENTER or physician.
- P390** Absorb spillage to prevent material damage.

Storage Statements

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

Disposal Statement

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

3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS No.	PROPORTION
Potassium Hydroxide	1310-58-3	10 – 30%
Non Hazardous Ingredients	-	Balance

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone New Zealand 0800 764 766).

- Inhalation:** Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have a qualified person give oxygen through a facemask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage. Seek immediate medical advice.

SAFETY DATA SHEET



- Skin Contact:** If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance. For gross contamination, immediately drench with water and remove clothing. Continue to flush skin and hair with plenty of water).
- Eye Contact:** Immediately irrigate with copious quantities of water for 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport to hospital or medical centre.
- Ingestion:** Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Immediately call Poisons Centre or Doctor.
- PPE for First Aiders:** Wear rubber boots, overalls, gloves, apron, chemical goggles, air mask. Use with adequate ventilation. If inhalation risk exists, wear air-supplied mask meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Wash contaminated clothing and other protective equipment before storing or re-using.
- Advice to Doctor:** Treat symptomatically. Can cause skin and corneal burns.

5. FIRE FIGHTING MEASURES

- Specific Hazard** Non-combustible material. Corrosive chemical. Wear protective gloves, protective clothing and eye protection.
- Suitable Extinguishing Media:** Not combustible, however, if material is involved in a fire use: Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).
- Fire fighting further advice** Not combustible, however following evaporation of aqueous component residual material can decompose if involved in a fire, emitting toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.
- HAZCHEM** 2R

6. ACCIDENTAL RELEASE MEASURES

- SMALL SPILLS**
Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours, mist or spray. Wipe up with non-combustible absorbent. Collect and seal in properly labelled containers or drums for disposal.

SAFETY DATA SHEET



LARGE SPILLS

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. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Use a spark-free shovel. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services. Caution - heat may be evolved on contact with water.

Dangerous Goods - Initial Emergency Response Guide No: 37

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. Wash thoroughly after handling. Use personal protection equipment. Keep out of reach of children.

Storage

Store in a cool, dry, well ventilated place. Store away from incompatible materials described in Section 10. Store away from foodstuffs. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep containers closed when not in use - check regularly for leaks.

This material is classified as a Class 8 Dangerous Goods as per the criteria of the "New Zealand NZS5433: Transport of Dangerous Goods on Land" and must be stored in accordance with the relevant regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits:

As published by WorkSafe New Zealand.

	TWA		STEL		NOTICES
	ppm	mg/m ³	ppm	mg/m ³	
Potassium Hydroxide	-	2	-	-	

WES-TWA (Workplace Exposure Standard - Time-weighted average). The average airborne concentration of a substance calculated over an eight-hour working day.

WES-Ceiling (Workplace Exposure Standard - Ceiling). A concentration that should not be exceeded at any time during any part of the working day.

SAFETY DATA SHEET



WES-STEL (Workplace Exposure Standard - Short-term exposure limit). The 15-minute time weighted average exposure standard. Applies to any 15-minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Exposures at concentrations between the WES-TWA and the WES-STEL should be less than 15 minutes, should occur no more than four times per day, and there should be at least 60 minutes between successive exposures in this range.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These 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.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

Biological Limit Values:

As per the WorkSafe New Zealand the ingredients in this material do not have a Biological Limit Allocated.

Engineering Measure:

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. Vapour heavier than air - prevent concentration in hollows or sumps. Do NOT enter confined spaces where vapour may have collected.

Personal Protective Equipment:

RUBBER BOOTS, OVERALLS, GLOVES, APRON, CHEMICAL GOGGLES/FACE SHIELD

Personal protective equipment (PPE) must be suitable for the nature of the work and any hazard associated with the work as identified by the risk assessment conducted.

Wear rubber boots, overalls, gloves, apron, chemical goggles/face shield. Use with adequate ventilation. If inhalation risk exists, wear air-supplied mask meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Available information suggests that gloves made from nitrile rubber or vinyl 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. Wash contaminated clothing and other protective equipment before storing or re-using.

SAFETY DATA SHEET



Hygiene measures:

Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear Amber
Form:	Liquid
Odour:	Nil
pH:	< 14 (undiluted)
Freezing Point	Unknown
Boiling Point/Range (°C):	> 100°C
Flash Point (°C):	Does not flash
Flammability:	No Data Available
Explosive Limits:	No Data Available
Vapour Pressure:	Unknown
Vapour Density:	Unknown
Specific Gravity / Density:	1.22 (Approx.)
Solubility:	Complete
Partition Coefficient:	No Data Available
Auto-Ignition Temperature:	No Data Available
Decomposition Temperature:	Unknown
Kinematic Viscosity:	Unknown
SADT:	Unknown

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Conditions to Avoid:	Avoid contact with food stuffs.
Incompatible Materials:	Acids. Ammonium salts. Some metals (eg zinc, aluminium, tin
Hazardous Decomposition Products:	None known.
Hazardous Reactions:	Reacts with ammonium salts, evolving ammonia gas. Reacts readily with various reducing sugars (i.e. fructose, galactose, maltose, dry whey solids) to produce carbon monoxide.

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 over exposure occurs are:

ACUTE EFFECTS

Inhalation

Material may be an irritant to mucous membranes and respiratory tract.

Skin contact

Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.

Ingestion

Harmful if swallowed. Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.

Eye Contact

A severe eye irritant. Corrosive to eyes: contact can cause corneal burns. Contamination of eyes can result in permanent injury.

ACUTE TOXICITY

Inhalation

This material has not been classified as having Acute Inhalation Toxicity.

Skin contact

This material has not been classified as having Acute Dermal Toxicity

Ingestion

This material has been classified as having Acute Oral Toxicity – Category 4.

Corrosion/Irritancy

Eye: This material has been classified as Serious Eye Damage - Category 1. *Skin:* This material has been classified as Skin Corrosion - Category 1B.

Sensitisation

Inhalation : This material has been classified as not a respiratory sensitiser. *Skin :* this material has been classified as not a skin sensitiser.

CHRONIC TOXICITY

Mutagenicity

This material has been classified as non-hazardous.

Carcinogenicity

This material has been classified as non-hazardous.

Reproductive Toxicity (including via Lactation)

This material has been classified as non-hazardous.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute aquatic hazard	Expected to be harmful to aquatic species due to high pH.
Long-term aquatic hazard	This material has been classified as non-hazardous.
Ecotoxicity in the Soil Environment	This material has been classified as non-hazardous
Ecotoxicity to terrestrial vertebrates	This material has been classified as hazardous to terrestrial vertebrates.
Ecotoxicity to terrestrial invertebrates	This material has been classified as non-hazardous.
Ecotoxicity	No information available.
Persistence and degradability	No information available.
Bioaccumulative potential	Not expected to bioaccumulate.
Mobility	No information available.

13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

14. TRANSPORT INFORMATION

Classified as Dangerous Goods by the criteria of the "New Zealand NZS5433: Transport of Dangerous Goods on Land", International Maritime Dangerous Goods Code (IMDG Code) for transport by sea, and the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

SAFETY DATA SHEET

ROAD AND RAIL TRANSPORT



UN Number: 1814
Proper Shipping Name: POTASSIUM HYDROXIDE SOLUTION
Emergency Response Guide No.: 37
Class: 8
Packing Group: II
HAZCHEM 2R

Segregation Dangerous Goods: 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. Not to be loaded on the same vehicle with strong acids.

MARINE TRANSPORT



UN Number: 1814
Proper Shipping Name: POTASSIUM HYDROXIDE SOLUTION
Class: 8
Packing Group: II

AIR TRANSPORT



UN Number: 1814
Proper Shipping Name: POTASSIUM HYDROXIDE SOLUTION
Class: 8
Packing Group: II

SAFETY DATA SHEET



15. REGULATORY INFORMATION

EPA Approval Code: HSR002526

NZIoC All components are listed on the New Zealand Inventory of Chemical Substances.

16. OTHER INFORMATION

Date Issued: March 24, 2023

Version: 2.0

Replaces: May 08, 2018

Date of Next Review: March 24, 2028

Safety Data Sheets are updated frequently. Please ensure that you have a current copy. This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate.

However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.

End of Safety Data Sheet