PRODUCT:	Alkaline - H

1. Product and Company Identification

PRODUCT NAME:	Alkaline - H	
SYNONYM:	CIP cleaner based on caustic soda	
CHEMICAL NAME:	Alkaline cleaner containing caustic lye (NaOH), sequestrants and surfactants.	
CAS NO:	1310-73-2	
UN NO:	1824	
REF NO:	Hazard Class: 8	
SUPPLIER:	Name:	**Pineland Environmental Technology (Pty) Ltd**
	Tel No:	*+27 (0)21 531 3749*
	Telefax:	*+27 (0)21 531 3903*
EMERGENCY TELEPHONE NO:	*082 464 1074 (Chris Davidson)*	

2. Composition/Information on Ingredients

CHEMICAL NATURE:	A low foam, sodium hydroxide based liquid designed for the cleaning and sterilizing of all hard surfaced areas such as stainless steel piping systems. Sodium hydroxide, surfactant and sodium gluconate.

3. Hazards Identification

ADVERSE HUMAN HEALTH EFFECTS:	Poison! Danger! Corrosive. May be fatal if swallowed. Harmful if inhaled. Causes burns to any area of contact.
PHYSICAL AND CHEMICAL HAZARDS:	Reacts with water, acids and other materials.
- Fire or explosion:	Flammability Rating: 0 - None
CLASSIFICATION/SPECIFIC HAZARDS:	Health Rating: 3 - Severe (Poison) Reactivity Rating: 2 - Moderate Contact Rating: 4 - Extreme (Corrosive)

4. First Aid Measures (To be done by first aider)

INHALATION:	Severe irritant. Effects from inhalation of mist vary from mild irritation to serious damage of the upper respiratory tract, depending on severity of exposure. Symptoms may include sneezing, sore throat or runny nose. Severe pneumonitis may occur. Remove patient to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
SKIN CONTACT:	Corrosive! Contact with skin can cause irritation or severe burns and scarring with greater exposures. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician, immediately. Wash clothing before reuse.

PRODUCT:	Alkaline - H

EYE CONTACT:	Corrosive! Causes irritation of eyes, and with greater exposures it can cause burns that may result in permanent impairment of vision, even blindness. Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.
INGESTION:	Corrosive! Swallowing may cause severe burns of mouth, throat, and stomach. Severe scarring of tissue may result. Symptoms may include bleeding, vomiting, diarrhoea and fall in blood pressure. Damage may appear days after exposure. DO NOT INDUCE VOMITING! Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. Notes to Physician (NB: This treatment is only to be given by a medical doctor or under his supervision

INGESTION:	Perform endoscopy in all cases of suspected sodium hydroxide ingestion. In cases of severe oesophageal corrosion, the use of therapeutic doses of steroids should be considered. General supportive measures with continual monitoring of gas exchange, acid-base balance, electrolytes, and fluid intake are also required.
CARCINOGENITY:	None

6. Fire Fighting Measures

EXTINGUISHING MEDIA:	Use any means suitable for extinguishing surrounding fire. Adding water to caustic solution generates large amounts of heat. Special Information: In the event of a fire, wear full protective clothing and self-contained breathing apparatus with full-face piece operated in the pressure demand or other positive pressure mode.
- Suitable:	
- Not to be used:	None known – complete combustion will give co and water.
SPECIFIC HAZARDS:	Not considered to be a fire hazard. Hot or molten material can react violently with water. Can react with certain metals, such as aluminium, to generate flammable hydrogen gas.

PRODUCT:	Alkaline - H

7. Accidental Release Measures

PERSONAL PRECAUTIONS:	Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Wear appropriate personal protective equipment
ENVIRONMENTAL PRECAUTIONS:	Spills: Pick up and place in a suitable container for reclamation or disposal. Do not flush caustic residues to the sewer. Residues from spills can be diluted with water, neutralized with diluted acid such as acetic, hydrochloric or sulphuric. Absorb neutralized caustic residue on clay, vermiculite or other inert substance and package in a suitable container for disposal Prevent contamination of surface and ground water.
METHODS FOR CLEANING UP:	Clean up small spills with suitable implement, and collect for disposal.

8. Handling and Storage

HANDLING:	Always add the caustic to water while stirring; never the reverse. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.
Technical Measures:	Do not mix with acids or organic materials.
STORAGE:	Keep in a tightly closed container. Protect from physical damage. Store in a cool, dry, ventilated area away from sources of heat, moisture and incompatibilities.
Technical measures:	
Recommended storage conditions:	Do not store with aluminium or magnesium.
Incompatible products:	Sodium hydroxide in contact with acids and organic halogen compounds, especially trichloroethylene, may cause violent reactions. Contact with Nitromethane and other similar nitro compounds causes formation of shock-sensitive salts. Contact with metals such as aluminium, magnesium, tin, and zinc cause formation of flammable hydrogen gas. Sodium hydroxide, even in fairly dilute solution, reacts readily with various sugars to produce carbon monoxide.
Packaging:	
Packaging materials:	
- Recommended:	Watertight plastic buckets
- Not suitable:	Steel, aluminium.

PRODUCT:	Alkaline - H

9. Exposure Controls/Personal Protection

Engineering Measures:	
PERSONAL PROTECTIVE EQUIPMENT:	
- Hand Protection:	Wear gloves
- Eye Protection:	Wear goggles
- Skin and body Protection:	Avoid contact

10. Physical and Chemical Properties

APPEARANCE:	
- Physical state:	Liquid
- Colour:	Slight brown
ODOUR:	Neutral
- pH:	More than 13
SPECIFIC TEMPERATURES:	
- Melting:	N/A
- Boiling:	N/A
FLAMMABILITY CHARACTERISTICS:	
- Flash point:	N/A
- Ignition temperature:	N/A
- Explosion limits:	Not considered to be an explosion hazard.
OXIDIZING PROPERTIES:	
DENSITY:	
BULK DENSITY:	
VAPOUR PRESSURE:	
SOLUBILITY:	
- In water:	Miscible in all proportions
- In organic solvents:	

11. Stability and Reactivity

STABILITY:	Stable under normal storage conditions.
HAZARDOUS REACTIONS:	
- Materials to avoid:	Do not mix with acids or organic materials.
- Conditions to avoid:	
- Hazardous decomposition products:	Decomposition by reaction with certain metals releases flammable and explosive hydrogen gas.

12. Toxological Information

ACUTE TOXICITY:	Irritation data: skin, rabbit: 500 mg/24H severe; eye rabbit: 50 ug/24H severe.
LOCAL EFFECTS:	Results of in vitro (test tube) mutagenicity tests have been negative.

PRODUCT:	Alkaline - H

13. Ecological Information

BEHAVIOUR IN THE ENVIRONMENT:	Environmental Fate: No information found. Environmental Toxicity: No information found
PERSISTENCE/ DEGRADABILITY:	No information found
EXPECTED BEHAVIOUR OF THE PRODUCT:	No information found
POSSIBLE IMPACT/EFFECTS:	No information found
ECOTOXICITY:	No information found

14. Disposal Considerations

STABILITY:	
WASTE FROM RESIDUES:	
- Disposal:	
CONTAMINATED PACKAGING:	
Decontamination/cleaning:	
Disposal:	
LAND:	This product is not classified as dangerous for transport
RAIL/ROAD (RID/ADR):	This product is not classified as dangerous for transport
SEA (IMO/IMDG):	This product is not classified as dangerous for transport
AIR (ICAO-IATA):	This product is not classified as dangerous for transport

16. Regulatory Information

EEC REGULATIONS:	
HAZARD SYMBOL:	C (corrosive)
R PHRASES:	R35
S PHRASES:	S26; S36/37/39; S45

17. Other Information

USES:	
OTHER:	

The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended.

The classification was effectuated according to information derived from technical literature and supplier companies.

Information included in this document is based on our present state of knowledge, however, they do not assure the product properties and do not assume any legal condition.
The material safety data sheet completes the product information without replacing it.