STERIS

SAFETY DATA SHEET

1. Identification of the Substance and Company

CIP 150

Alkaline Process and Research Cleaner

Product No. 1D15

MSDS No. 1D15

NFPA 704 HAZARD RATING:

HEALTH: 3

FIRE: 0

REACTIVITY: 1

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Emergency Telephone No.1-314-535-1395 (STERIS); 1-800-424-9300 (CHEMTREC)
Telephone Number for Information: 1-800-444-9009 (Customer Service-Scientific Products)

2. Hazards Identification: Corrosive

3. Composition/Information on Ingredients

Hazardous Component(s)	% By Wt.	CAS No.	EU No.	Symbol	R Phrases	Oral LD_{50}	Inhalation LC_{50}
Potassium hydroxide	5 - 10	1310-58-3	215-181-3	NA	NA	365 mg/kg (rat)	ND
Sodium Hypochlorite	1 - 5	7681-52-9	231-668-3	NA	NA	13g/kg (rat – 5% solution)	ND
Sodium hydroxide	1 - 5	1310-73-2	215-185-5	NA	NA	500mg/kg (rabbit – LDLo)	ND

4. First Aid Measures
Eye Contact: Flush eyes immediately with water for at least 15 minutes. Get medical attention.
Skin Contact: Flush skin immediately with water for at least 15minutes. Get medical attention.
Inhalation: Remove patient to fresh air. If not breathing, give artificial respiration. Get medical attention.
Ingestion: Do not induce vomiting. Get medical attention. Do not give anything by mouth to an unconscious person. If conscious, drink a large quantity of milk or water.

5. Fire-Fighting Measures
Conditions of Flammability/Flash Point/Auto-ignition Temperature: None
Upper Flammable Limit: ND **Lower Flammable Limit:** ND
Special Hazards: Decomposition products may rupture containers when heated; toxic and flammable gasses may be released. **Explodability Data:** ND
Extinguishing Media: Suitable for surrounding fire: water, CO_2, foam, dry chemical.
Special Fire Fighting Procedures: Respiratory protection is essential.
Hazard Combustion Products: HCI, Cl_2, HOCI, CO_2, hydrogen gas.

6. Accidental Release Measures: Contain spill. Absorb on absorbent material and place in a D.O.T. approved container for disposal. Neutralize remaining spill with inorganic acid. Then flush site with large quantities of water to the sanitary sewer.

7. Handling and Storage:
7.1 Handling: Avoid contact with eyes and skin. Wash thoroughly after using. Avoid breathing vapors.
7.2 Storage: Keep container tightly closed and properly labeled. Store in a cool, ventilated area away from incompatible materials.

8. Exposure Control/Personal Protection
8.1 Occupational Exposure Limits
Sodium hypochlorite: ACGIH TLV and OSHA PEL = 1 ppm
Sodium hydroxide: ACGIH TLV and OSHA PEL = 2 mg/m^3 ceiling; UK HSE E40 STEL = 2 mg/m^3
Potassium hydroxide: ACGIH TLV = 2 mg/m^3 ceiling; UK HSE E40 STEL = 2 mg/m^3
8.2 Personal Protection
Respirator Protection: Required if established exposure limits (Sec. 8.1) are exceeded.
Eye Protection: Goggles. **Protective Gloves:** Rubber.
Other Protective Clothing and Equipment: Clothes sufficient to avoid contact.
Engineering Controls/Ventilation: Local exhaust ventilation recommended to control air concentrations below established limits.

9. Physical and Chemical Properties
Solubility in Water: Complete **Specific Gravity:** Approximately 1.16
Physical State/Appearance/Odor: Clear, light yellow liquid. Chlorine odor.
pH: (1% solution): Approximately 11.8 – 12.2
Odor Threshold, Vapor Pressure, Vapor Density, Evaporation Rate, Boiling Point and Freezing Point: ND
Coefficient of Water/Oil Distribution: ND

10. Stability and Reactivity
Stability: Stable **Hazardous Polymerization:** Will not occur.
Incompatible Materials: Reacts violently with acids liberating irritating gas. May evolve flammable hydrogen gas on contact with soft metals.
Conditions to Avoid/Conditions of Reactivity: Exposure to heat, light, contamination with incompatible materials. **Hazardous Decomposition or Byproducts:** HCI, Cl_2, HOCI, CO_2, hydrogen gas.

11. Toxicological Information
11.1 Acute (Primary Routes of Exposure)
Eyes (Irritancy): Corrosive. Causes burns.
Skin (Irritancy or Sensitization): Causes severe irritation or burns.
Inhalation: Mists and fumes irritating to nose, throat, respiratory tract.
Ingestion: Severely irritating to mouth, throat, gastrointestinal tract.
11.2 Long Term Exposure: None known.
Carcinogenicity: IARC, NTP and OSHA do not list this product or its ingredients as carcinogens.
Reproductive Toxicity/Teratogenicity/Mutagenicity/Toxicologically Synergistic Products: ND

12. Ecological Information: Aquatic Toxicity: LC50 (10% Solution)(Pimephales promelas) > 750 mg/L

13. Disposal Considerations
Product may be flushed to a sanitary sewer with copious amounts of water, if in accordance with state, local and federal regulations. For additional guidance, contact the State Water Board or the Regional Office of the EPA.

14. Transport Information
Ground: Corrosive Liquid Basic, Inorganic N.O.S. (Potassium Hydroxide and Sodium Hypochlorite), 8, UN3266, PG III
Road/Rail: ADR/RID Class: Corrosive Liquid Basic, Inorganic N.O.S. (Potassium Hydroxide and Sodium Hypochlorite), 8, UN3266, PG III, 47(b)
Sea: Corrosive Liquid Basic, Inorganic N.O.S. (Potassium Hydroxide and Sodium Hypochlorite), 8, UN3266, PG III
Air: Restricted from air shipment.

15. Regulatory Information
WHMIS Classification: E – Corrosive Material
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulation.

16. Other Information
The information on this sheet is not a specification and does not guarantee specific properties. The information is intended to provide general knowledge as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product or where instruction or recommendations are not followed.

NA - Not Applicable ND - No Data