

1. IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND COMPANY/UNDERTAKING	
PRODUCT	<b>HYDRO-KLEEN</b>
APPLICATION	Heavy Duty Foaming Coil/Condenser Cleaner
COMPANY/UNDERTAKING IDENTIFICATION	ADVANCED ENGINEERING LTD. UNIT L, KINGSFIELD BUSINESS CENTRE, PHILANTHROPIC ROAD, REDHILL, SURREY, RH1 4DP, ENGLAND TELEPHONE : +44 (0) 1737 859900 EMERGENCY TELEPHONE NO. AS ABOVE FAX : +44 (0) 1737 859700

2. COMPOSITION/INFORMATION ON INGREDIENTS	
CHEMICAL DESCRIPTION :	Sodium Hydroxide Preparation
HAZARDOUS COMPONENTS :	Sodium Hydroxide

3. HAZARDS IDENTIFICATION	
The most important hazards are :	Corrosive, causes severe burns

4. FIRST AID MEASURES	
EYE	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. Obtain immediate medical attention.
SKIN	Wash thoroughly with plenty of water. Remove contaminated clothing and continue washing. Obtain medical attention if irritation persists or there is any sign of skin damage.
INHALATION	Remove patient to fresh air and keep warm. Oxygen may be administered by authorised personnel. If breathing fails give artificial respiration. Obtain immediate medical attention.
INGESTION	Do not induce vomiting. If conscious wash out mouth thoroughly with water and give plenty of water to drink.

5. FIRE FIGHTING MEASURES	
EXTINGUISHING MEDIA	Consider what other flammable materials are present and act accordingly.
HAZARDS	Presents no specific fire danger
UNSUITABLE MEDIA	Nothing specific

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)	
PERSONAL PRECAUTIONS:	Use approved personal protection equipment. Evacuate area immediately. Do not allow other people to enter area. Do not allow general use of area until it is safe to do so.
ENVIRONMENTAL PRECAUTIONS	Keep non-neutralised material out of sewers, storm drains, surface waters and soil. Notify National Rivers Authority and local Environmental Health Officer if major spillage occurs.
RECOVERY OF MAJOR SPILLAGE:	Absorb spilled material with sand or earth and remove to a safe place. Flush area with water. Contain spill with inert material. Wash area down with copious amounts of water.
MINOR SPILLAGE:	Wash area down with copious amounts of water.

7. HANDLING AND STORAGE (IN NORMAL USE)
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SAFETY DATA SHEET – HYDRO-KLEEN

STORAGE:	Store in a dry place protected against moisture and water. Keep well separated from acids, metals explosives, organic peroxides and easily ignitable materials.
GENERAL:	Ensure Local Exhaust Ventilation maintains vapour concentrations below the recommended limits.
HANDLING:	Avoid contact with skin and eyes. Do not breathe vapours. Do not allow to contaminate clothing.

8. EXPOSURE CONTROLS		
OCCUPATIONAL EXPOSURE LIMITS	OEL	OEL
	Long Term	Short Term
	2 mg m-3	2 mg m-3
ENGINEERING MEASURES	Avoid generating mist.	
PERSONAL PROTECTIVE EQUIPMENT		
RESPIRATORY	In cases where a mist may be formed, use L.E.V. or natural ventilation to maintain vapour concentrations below exposure limited. If not, use a well maintained chemical cartridge respirator, or use self contained breathing apparatus.	
HAND	Use nitrile gloves or PVC gauntlets	
EYE	Use chemical splash proof glasses or goggles.	
SKIN	If skin contact or contamination of clothing is likely, protective clothing must be worn.	

9. PHYSICAL/CHEMICAL PROPERTIES	
APPEARANCE	Dark green liquid.
ODOUR	Slight but characteristic
PH	Very strongly alkaline
BOILING POINT	125°C
MELTING POINT	0°C
FLASHPOINT (°C)	Not applicable
FLAMMABILITY UPPER	Not applicable
FLAMMABILITY LOWER	Not applicable
VAPOUR PRESSURE	mmHg 5
RELATIVE DENSITY	1,353
SOLUBILITY (WATER AND FAT)	Soluble in water, no limit

10. STABILITY AND REACTIVITY	
STABILITY:	Stable
CONDITIONS TO AVOID:	No specific conditions
MATERIALS TO AVOID :	Acids. Reacts with aluminium & zinc to give extremely flammable hydrogen gas.
RECOMMENDED MATERIALS FOR EQUIPMENT-	Mild Steel, 316, polythene
HAZARDOUS DECOMPOSITION PRODUCTS : -	None known.

11. TOXICOLOGICAL INFORMATION	ACUTE EFFECTS
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SAFETY DATA SHEET – HYDRO-KLEEN

EYES	The liquid will cause severe burns. Damage can range from severe irritation and corneal scarring to permanent blindness.
SKIN	Contact with the liquid will not lead to immediate pain but damage begins at once. Severe ulceration and scarring may occur in serious cases.
INGESTION	Ingestion will cause severe mouth burns, and if swallowed extensive damage to the oesophagus.
LD50 INGESTION	Rabbit 500 mg/kg
INHALATION	Presents no significant health hazard by inhalation.
CARCINOGENICITY	Not considered to be a carcinogen.
MUTAGENICITY	Not considered to be mutagen.
REPRODUCTIVE EFFECTS	None identified.
CHRONIC EFFECTS	

12. ECOLOGICAL INFORMATION	
MOBILITY	Soluble
PERSISTANCE & DEGRADABILITY	
BIO ACCUMULATION	
AQUATIC TOXICITY	Not known
OTHER	Spillages of Hydro-Kleen will cause acute localised damage to flora and fauna. The extent of damage will depend on the capacity of the receiving system to neutralise spillage or dilute it to non-toxic levels. Small amounts present no specific environmental hazard.

13. DISPOSAL CONSIDERATIONS	
DISPOSAL METHODS	In accordance with legislation. Do not dispose as domestic waste.
CONTAMINATED PACKAGING	Empty completely and rinse with water.

14. TRANSPORT INFORMATION (REGULATIONS)	
PACKAGING (Size & Description)	4x 5 litre bottles per carton
TRANSPORT CLASSIFICATION	Corrosive Liquid
SUBSTANCE IDENTIFICATION NUMBER	UN 1824
PROPER SHIPPING NAME	SODIUM HYDROXIDE SOLUTION
ICAO/IATA/IMDG CLASS	8
SUBSIDIARY RISK	
PACKING GROUP	III
ADR CLASS	8
TRANSPORT HAZARD SYMBOL	CORROSIVE
HAZARD IDENT NUMBER	
EMERGENCY ACTION CODE	
OTHER	

15. REGULATORY INFORMATION (Supply & Labelling)	
SUPPLY CLASSIFICATION	CORROSIVE
HAZARD PICTOGRAM	
RISK PHRASES	35 Causes severe burns
SAFETY PHRASES	2, 26, 37/39 Keep out of reach of children. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection.

16. OTHER INFORMATION	
The information contained in this document only covers the hazards presented by this material, it does not constitute a workplace risk assessment.	

The information contained in this Safety Data Sheet is based on present knowledge. It provides guidance on health, safety and environmental aspects of the product. The specific conditions of use of the product are outside the suppliers control.

The data and advice given apply when the product is sold for the stated application or applications. The product is not sold as suitable for any other application. Use of the product for applications other than as stated in this sheet may give rise to risks not mentioned in this sheet. You should not use the product other than for the stated application or applications without seeking advice from us.

If you have purchased the product for supply to a third party for use at work, it is your duty to take all necessary steps to secure that any person handling or using the product is provided with the information in this sheet.

If you are an employer, it is your duty to tell your employees and others who may be affected of any hazards described in this sheet and of any precautions which should be taken.

17. REVISIONS AND DATES

Revision 1.1 Dec 1998. Change of address and telephone numbers