

1. IDENTIFICATION OF THE SUBSTANCE/
PREPARATION AND COMPANY/UNDERTAKING

PRODUCT : **HYDRO-FOAM**
 APPLICATION : FOAMING CONDENSER COIL CLEANER
 COMPANY/UNDERTAKING IDENTIFICATION
 ADVANCED ENGINEERING LTD.
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2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL DESCRIPTION : BLENDED ACIDS IN AQUEOUS BASE
 HAZARDOUS COMPONENTS : HYDROFLUORIC ACID
 PHOSPHORIC ACID

3. HAZARDS IDENTIFICATION

The most important hazards are : CORROSIVE
 TOXIC

4. FIRST AID MEASURES

EYES	Flush immediately with water, continue for at least 15 mins. Instil sterile calcium gluconate solution. Obtain urgent medical attention.
SKIN	Wash immediately with water. Apply HF burn gel until pain has ceased for 15 mins. Large burn areas e.g. hand or forearm size, give 6 effervescent calcium gluconate tablets orally. Obtain medical attention.
INHALATION	Remove from exposure. Use any resuscitation measures necessary. After severe exposure and if conscious give oral calcium gluconate. Obtain urgent medical attention
INGESTION	Give calcium gluconate orally. Obtain urgent medical attention.
OTHER	

5. FIRE FIGHTING MEASURES

EXTINGUISHING	
MEDIA	Consider other substances present.
HAZARDS	Will give toxic fumes on heating. Evolves heat on addition of water. Produces hydrogen gas with most metals.
UNSUITABLE	
MEDIA	None specified.

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

PERSONAL

PRECAUTIONS:

Total protection is required. Acid proof boots, PVC suit & gloves, respirator for HF & eye/face protection.

ENVIRONMENTAL

PRECAUTIONS:

Do not allow to enter water courses. Neutralise before flushing to drain.

RECOVERY OF

MAJOR SPILLAGE:

Wear self-contained breathing apparatus. Contain spill with soil if possible. Sand reacts to form a corrosive acid which needs neutralising, like hydrofluoric acid, with lime or soda ash. It is advisable to spray the spillage with water to reduce fumes and heat generated when neutralising.

Neutralised slurry can be flushed to drain with copious amounts of water.

MINOR SPILLAGE:

Neutralise & flush away.

7. HANDLING AND STORAGE (IN NORMAL USE)

STORAGE:

In a cool shaded place, away from heat and incompatible products.

GENERAL:

Keep containers upright and closed with water nearby.

HANDLING:

Always wear protective equipment.

8. EXPOSURE CONTROLS

OCCUPATIONAL EXPOSURE LIMITS

OEL OEL

Long Term Short Term

3 ppm 6 ppm

ENGINEERING MEASURES

As required to keep below OEL

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY

Only necessary if used within plantroom. Appropriate respirator for hydrofluoric acid.

HAND

PVC gloves

EYE

Goggles as minimum, head & shoulder hood with integral visor may be appropriate.

SKIN

PVC suit recommended for total coverage.

OTHER

Acid proof boots may be required.

9. PHYSICAL/CHEMICAL PROPERTIES

APPEARANCE

Yellow

ODOUR

Acidic

PH

Strongly Acidic

BOILING POINT

90°C Approx.

MELTING POINT

N/A

FLASHPOINT (°C)

N/A

FLAMMABILITY (GAS/SOLID)

N/A

AUTO FLAMMABILITY

N/A

EXPLOSIVE PROPERTIES

N/A

VAPOUR PRESSURE

No information

RELATIVE DENSITY

1.05

SOLUBILITY

(WATER AND FAT)

Totally miscible with water.

OTHER :

10. STABILITY AND REACTIVITY

STABILITY:	Stable
CONDITIONS TO AVOID:	Heat
MATERIALS TO AVOID :	Cyanides - Toxic Gases Alkalis - Heat.
HAZARDOUS DECOMPOSITION PRODUCTS :	Hydrogen Fluoride Fumes

11. TOXICOLOGICAL INFORMATION

ACUTE EFFECTS	(SUDDEN COLLAPSE MAY OCCUR SOME HOURS AFTER SUSTAINING SEVERE BURNS, LOW SERUM Ca OR Mg IS LIKELY CAUSE)
EYES	Corrosive to living tissue, irreversible, damage very probable.
SKIN	Corrosive, causes painful burns. Necrotic tissue may need to be sed to treat. Systemic poisoning possible by skin absorbtion. Dilute solutions can cause burns delayed by hours.
INGESTION	Corrosive to mouth, oesophagus & stomach.
INHALATION	Pulmonary oedema, lung damage. TCLo 100mg/cu.m/1 min. HUMAN LD50 1276 ppm/1hr. RAT
CARCINOGENICITY	No evidence listed
MUTAGENICITY	No evidence listed
REPRODUCTIVE EFFECTS	No evidence listed
CHRONIC EFFECTS	Acute effects predominate.

12. ECOLOGICAL INFORMATION

MOBILITY	Water soluble
PERSISTANCE & DEGRADABILITY	Will react with natural minerals
BIO ACCUMULATION	Not expected
AQUATIC TOXICITY	No data available but expected to be high

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS	Approved waste disposal contractor. Neutralisation.
CONTAMINATED PACKAGING	Must be totally flushed before disposal.

14. TRANSPORT INFORMATION (REGULATIONS)

PACKAGING (Size & Description)	5 LITRE PLASTIC CONTAINERS
TRANSPORT CLASSIFICATION	CORROSIVE LIQUID
SUBSTANCE IDENTIFICATION NUMBER	UN 1790
PROPER SHIPPING NAME	HYDROFLUORIC ACID (8%)
ICAO/IATA/IMDG CLASS	8
SUBSIDIARY RISK	6.1
PACKING GROUP	II
ADR CLASS	8 (6.1)
TRANSPORT HAZARD SYMBOL	CORROSIVE, TOXIC
HAZARD IDENT NUMBER	
EMERGENCY ACTION CODE	
OTHER	

15. REGULATORY INFORMATION (Supply & Labelling)

SUPPLY CLASSIFICATION	TOXIC, CORROSIVE
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HAZARD PICTOGRAM

RISK PHRASES

R23, 24, 25, 35

Very toxic by inhalation, in contact with skin and if swallowed.

Causes severe burns.

SAFETY PHRASES

7/9, 26, 36/37, 45

Keep container tightly closed and in a well ventilated place.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable protective clothing & gloves.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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