

SAFETY DATA SHEET

HYDROFOAM

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Revision No: 2

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

Product name: HYDROFOAM

Product code: HYFO

Use / description of product: Corrosive, inorganic acids.

Company name: Advanced Engineering Limited

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2. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous ingredients: SURFACTANT K2 1-10%

[Xn] R20/22

- HYDROFLUORIC ACID 1-10%

EINECS: 231-634-8 CAS: 7664-39-3

[T+] R26/27/28; [C] R35

- ORTHOPHOSPHORIC ACID 1-10%

EINECS: 231-633-2 CAS: 7664-38-2

[C] R34

3. HAZARDS IDENTIFICATION

Main hazards: Very toxic by inhalation, in contact with skin and if swallowed. Causes severe burns.

4. FIRST AID MEASURES (SYMPTOMS)

Skin contact: There may be redness or whiteness of the skin in the area of exposure. Irritation or pain may occur at the site of contact. Absorption through the skin may be fatal.

Eye contact: There may be severe pain. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat. There may be vomiting.

Convulsions may occur. There may be loss of consciousness.

Inhalation: There may be shortness of breath with a burning sensation in the throat. Absorption through the lungs can occur causing symptoms similar to those of ingestion. Convulsions may occur. There may be loss of consciousness.

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4. FIRST AID MEASURES (ACTION)

- Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning. Please ensure Calcium Gluconate antidote gel is always available.
- Eye contact:** Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.
- Ingestion:** Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.
- Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. If conscious, ensure the casualty sits or lies down. If unconscious and breathing is OK, place in the recovery position. If unconscious, check for breathing and apply artificial respiration if necessary. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

5. FIRE-FIGHTING MEASURES

- Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.
- Exposure hazards:** Toxic. In combustion emits toxic fumes.
- Protection of fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions:** Notify the police and fire brigade immediately. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid.
- Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.
- Clean-up procedures:** Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

7. HANDLING AND STORAGE

- Handling requirements:** Avoid direct contact with the substance. Ensure there is exhaust ventilation of the area. Avoid the formation or spread of mists in the air.
- Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed.
- Suitable packaging:** Do not use aluminium containers. Must only be kept in original packaging.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Hazardous ingredients: HYDROFLUORIC ACID...100%

STEL (15 min exposure limit): 2.5 mg/m³ (OES)

- ORTHOPHOSPHORIC ACID...100%

TWA (8 hr exposure limit): 1 mg/m³ STEL (15 min exposure limit): 2 mg/m³ (OES)

Engineering measures: Ensure there is exhaust ventilation of the area.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Impermeable gloves.

Eye protection: Safety glasses with side-shields. Ensure eye bath is to hand.

Skin protection: Impermeable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

State: Liquid

Colour: Yellow

Odour: Acrid

Evaporation rate: Moderate

Oxidising: Non-oxidising (by EC criteria)

Solubility in water: Highly soluble

Viscosity: Viscous

Flash point°C: >100

pH: 3

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

Conditions to avoid: Heat. Hot surfaces. Flames.

Materials to avoid: Strong oxidising agents. Alkalis.

Haz. decomp. products: In combustion emits toxic fumes.

11. TOXICOLOGICAL INFORMATION

Hazardous ingredients: SURFACTANT K2

ORL RAT LD50 >5000 mg/kg

- HYDROFLUORIC ACID...100%

IPR RAT LDLO 25 mg/kg

SCU FRG LDLO 112 mg/kg

- ORTHOPHOSPHORIC ACID...100%

ORL RAT LD50 1530 mg/kg

Chronic toxicity: Danger of very serious irreversible effects in contact with skin. Danger of very serious irreversible effects if swallowed.

Routes of exposure: Refer to section 4 of SDS for routes of exposure and corresponding symptoms.

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12. ECOLOGICAL INFORMATION**Mobility:** Readily absorbed into soil.**Persistence and degradability:** Biodegradable.**Bioaccumulative potential:** No bioaccumulation potential.**Other adverse effects:** Negligible ecotoxicity.**13. DISPOSAL CONSIDERATIONS****Disposal of packaging:** Clean with water. Dispose of in a regulated landfill site or other method for hazardous or toxic wastes.**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.**14. TRANSPORT INFORMATION****ADR / RID****UN no:** 3289**ADR Class:** 6.1**Packing group:** II**Classification code:** TC3**Shipping name:** TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S.**Labelling:** 6.1+8**Hazard ID no:** 68**IMDG / IMO****UN no:** 3289**Class:** 6.1**Packing group:** II**EmS:** F-A,S-B**Marine pollutant:** .**Labelling:** 6.1+8**IATA / ICAO****UN no:** 3289**Class:** 6.1**Packing group:** II**Subsidiary risk:** 8**Packing instructions:** 609(P&CA); 611(CAO)**Labelling:** 6.1+8**15. REGULATORY INFORMATION****Hazard symbols:** Corrosive.

Very toxic.

**Risk phrases:** R26/27/28: Very toxic by inhalation, in contact with skin and if swallowed.

R35: Causes severe burns.

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- Safety phrases:** S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S28: After contact with skin, wash immediately with plenty of soap and water.
- S36/37/39: Wear suitable protective clothing, gloves and eye / face protection.
- S38: In case of insufficient ventilation, wear suitable respiratory equipment.
- S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S63: In case of accident by inhalation, remove casualty to fresh air and keep at rest.
- Note:** The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

- Risk phrases used in s.2:** R20/22: Harmful by inhalation and if swallowed.
- R26/27/28: Very toxic by inhalation, in contact with skin and if swallowed.
- R35: Causes severe burns.
- R34: Causes burns.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.