

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

Product name: ACC2-A

Product code: 62123

Use of substance / preparation: Acidic cleaner. Use only as directed. ENSURE FIRST AIDERS ARE TRAINED IN HF RESPONSE.

Company name: HOUGHTON plc

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2. HAZARDS IDENTIFICATION

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

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous ingredients: AMMONIUM BIFLUORIDE 10-20%

EINECS: 215-676-4 CAS: 1341-49-7

[T] R25; [C] R34

- SULPHURIC ACID 10-20%

EINECS: 231-639-5 CAS: 7664-93-9

[C] R35

- HYDROFLUORIC ACID 10-20%

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

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

Contains: See Section 16 for full explanation of R phrases.

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.

4. FIRST AID MEASURES (ACTION)

- Skin contact:** Ensure local medical facilities or hospital are aware of HF usage so they can make provision. Ensure first aiders are trained in hydrofluoric acid response. 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. Remove all contaminated clothes and footwear immediately unless stuck to skin. Transfer to hospital if there are burns or symptoms of poisoning. TREAT IMMEDIATELY WITH CALCIUM GLUCONATE GEL.
- 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. Use methods other than Mouth-to-Mouth resuscitation to avoid personal contamination. 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. Use methods other than Mouth-to-Mouth resuscitation to avoid personal contamination. 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 of hydrogen fluoride.
- 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: Must only be kept in original packaging.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Hazardous ingredients: HYDROFLUORIC ACID
WEL (8 hr TWA): 1.5 mg/m³ WEL (15 min STEL): 2.5 mg/m³

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: Pink

Relative density: 1.281@15.5C

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

Conditions to avoid: Heat. Hot surfaces. Flames.

Materials to avoid: Strong oxidising agents. Strong bases.

Haz. decomp. products: In combustion emits toxic fumes of hydrogen fluoride.

11. TOXICOLOGICAL INFORMATION

Hazardous ingredients: SULPHURIC ACID
ORL RAT LD50 2140 mg/kg

- HYDROFLUORIC ACID
IPR RAT LDLO 25 mg/kg
SCU FRG LDLO 112 mg/kg

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

12. ECOLOGICAL INFORMATION

Mobility: Readily absorbed into soil.

Persistence and degradability: The concept of degradability has little or no meaning regarding the inorganic species present.

Bioaccumulative potential: In aquatic organisms fluoride accumulates primarily in the exoskeleton of crustacea and in the bones of fish. There have been no reports of F accumulation in edible tissues.

Other adverse effects: Hydrofluoric acid toxicity: LC50: 108 mg/l (fish - *Oncorhynchus mykiss*) EC50: 97- 352 mg/l (daphnia) EC50: 43 - 122 mg/l (freshwater algae) Sulphuric acid toxicity: LC50: 42 mg/l (mosquito fish)

13. DISPOSAL CONSIDERATIONS

- Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company.
- Disposal of packaging:** IBC's have a refundable deposit paid on them and should be returned. 205 litre unlined steel drums also carry a deposit but can be returned for recycling. All other packaging should be disposed of in a manner acceptable to the authorities.
- 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: 2922 **ADR Class:** 8

Packing group: II **Classification code:** CT1

Shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (AMMONIUM BIFLUORIDE; SULPHURIC ACID; HYDROFLUORIC ACID)

Labelling: 8+6.1 **Hazard ID no:** 86



IMDG / IMO

UN no: 2922 **Class:** 8

Packing group: II **EmS:** F-A,S-B

Marine pollutant: .

Labelling: 8+6.1

IATA / ICAO

UN no: 2922 **Class:** 8

Packing group: II **Subsidiary risk:** 6.1

Packing instructions: 808(P&CA); 812(CAO)

Labelling: 8+6.1

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.

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.

Haz. ingredients (label): SULPHURIC ACID...13%; AMMONIUM BIFLUORIDE; HYDROFLUORIC ACID...10%

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

Other information: PLEASE REFER TO: INDG307 - HYDROFLUORIC ACID POISONING - RECOMMENDATIONS ON FIRST AID PROCEDURES.

MSDS complies with European Chemicals Regulation (REACH) 1907/2006/EC and Workplace exposure limits (EH40)

The classification detailed on this Safety Data Sheet refer to the neat material only. Dilution of the product may reduce the classification.

Acts of Parliament: The Health and Safety at Work etc. Act 1974. Environment Protection Act 1990. Statutory Instruments: Control of Substances Hazardous to Health Regulations 2002.

Chemicals (Hazard Information and Packaging) Regulations 2009.

The Carriage of Dangerous Goods Regulations 2009.

The Hazardous Waste (England and Wales) Regulations 2005.

Risk phrases used in s.3: R25: Toxic if swallowed.

R34: Causes burns.

R35: Causes severe burns.

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

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.