

Camlab Limited – Material Safety Data Sheet


1. Identification

Product Code CC/1930-CO

Product Name **AMMONIUM HYDROGEN DIFLUORIDE pure**

Molecular Formula **NH₄F.HF =57.04**

CAS Number **1341-49-7**

Supplier: **CAMLAB LIMITED**

**Norman Way Industrial Estate
Over
Cambridge
England
CB4 5WE**

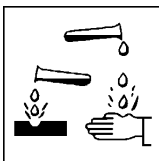
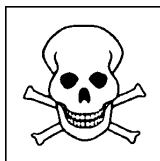
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24hr 112
(Have this document to hand)

2. Composition

Component	CAS No	EEC No	Conc w/w	Classification & Risk Phrases	Exp (See 8.1)
Fluoride, inorganic (as F)	7789-23-3	232-151-5	66.7%	T C : R23/24/25	WEL

3. Hazards Identification



Toxic if swallowed. Causes burns.

4. First Aid Measures

Eyes Irrigate thoroughly with plenty of water until MEDICAL ATTENTION has been obtained.

Skin Wash off skin thoroughly with water. If calcium gluconate gel is available immediately rub into all affected areas and massage until pain goes. If not wash with soap and water for 30 minutes. OBTAIN MEDICAL ATTENTION URGENTLY.

Inhalation Remove from exposure. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If conscious place in a sitting position. OBTAIN MEDICAL ATTENTION URGENTLY.

Ingestion If conscious give plenty of water to drink. Do not induce vomiting. If unconscious place in the recovery position. If conscious wash out mouth thoroughly with water and give milk or calcium gluconate to drink. OBTAIN MEDICAL ATTENTION URGENTLY.

5. Fire Fighting Measures

Hazards Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus. May evolve toxic fumes if involved in a fire.

Extinguishing Media Water spray, alcohol resistant foam, dry powder or carbon dioxide.

Unsuitable Media Do not use water jet.

6. Accidental Release Measures

Personal Protection	Use approved personal protective equipment. Evacuate area immediately. Do not allow general use of area until it is safe to do so. Beware : aqueous solutions are highly acidic.
Environmental	Keep non-neutralised material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.
Major Spillage	Contain and absorb on inert material. Neutralise spill with calcium hydroxide (slaked lime) to precipitate the insoluble fluoride. Wash area down with copious amounts of water.
Minor Spillage	Contain and absorb on inert material. Neutralise spill with calcium hydroxide (slaked lime) to precipitate the insoluble fluoride. Wash area down with copious amounts of water.

7. Storage & Handling

Handling Precautions	Avoid contact with skin and eyes. Do not breath dust. Do not allow to contaminate clothing. Ensure Local Exhaust Ventilation maintains dust concentrations below the recommended limits.
Storage Conditions	Well ventilated, cool, dry storage . Protect against moisture to prevent decomposition and corrosion.

8.1 Workplace Exposure Limits

Component	CAS No	Workplace Exposure Limits				Maximum Exposure Limits			
		Long Term		Short Term		Long Term		Short Term	
		ppm	mg m ⁻³	ppm	mg m ⁻³	ppm	mg m ⁻³	ppm	mg m ⁻³
Fluoride, inorganic (as F)	7789-23-3	-	2.500	-	-	-	-	-	-

8.2 Personal Protection

Respiratory	Use L.E.V. or natural ventilation to maintain dust concentrations below exposure limits. If not, use a well maintained chemical cartridge respirator, or use self contained breathing apparatus.
Hands	Use PVC gauntlets.
Eyes	Use chemical full face shield.
Skin	Wear PVC oversuit.

9. Physical & Chemical Properties

Appearance	White flakes.
Odour	No specific odour.
pH	1 @ 20 °C
Boiling point	Not available
Melting point	126.1 °C
Flash point	Not available
Upper Flammable Limit	Not available
Lower Flammable Limit	Not available
Auto Ignition	Not available
Explosive properties	No.
Oxidising Properties	No.
Vapour Pressure	400 mmHg @ 2.5 C
Relative Density	1.5100 °C
Water Solubility	80%

10. Stability & Reactivity

Chemical Stability	Stable under normal conditions but very hygroscopic and hydrolyses to form hydrofluoric acid.
Conditions to Avoid	Avoid ingress of water and contact with acids.
Materials to Avoid	Acids.
Hazardous Decomposition Products	Decomposes to emit ammonia and very toxic and extremely irritant fumes of hydrogen fluoride.

11. Toxicological Information

Eyes	The solid and solutions are irritating to the eyes.
Skin	Highly hygroscopic and hydrolyses to give hydrofluoric acid. Burns may occur if this material comes into contact with moist skin. Skin absorption may occur following contact with high concentrations.
LD50 Skin	Not available
Ingest	Like all soluble fluorides, toxic if swallowed. Ingestion may cause mouth and stomach irritation,
LD50 Ingest	Oral G.Pig 150mg/Kg
Inhalation	Contact with the solid or dust will produce irritation of the eyes, nose, throat and respiratory tract.
Carcinogenicity	No information is available.
Mutagenicity	No information is available.
Reproductive Effects	No information is available.

12. Ecological

Neutralised material presents no specific environmental hazard.

13. Disposal Considerations

Disposal Methods	Transfer to a large container and carefully add soda ash and calcium hydroxide at intervals. Decant liquid after 24 hours and neutralise hydrochloric acid, wash to drain with lots of water. The remaining sludge should be removed by a licensed contractor.
Contaminated Packaging	Use a licensed waste disposer.

14. Transport Information

Proper Shipping Name	Ammonium hydrogendifluoride,so
UN Number	1727
UN Classification	8 Corrosive
Subsidiary Risk	None
Flash Point	Not available
Packing Group	II
Transport Category	2
Marine pollutant	No
ADR Hazard ID	80

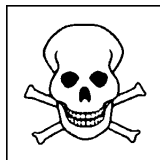


15. Regulatory Information

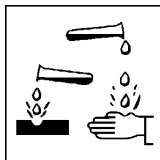
Labelling Classification Toxic, Corrosive.

Label Symbols

T



C



Risk & safety Phrases Toxic if swallowed. Causes burns. Keep locked up and out of reach of children. Do not breath dust. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label).

EEC Number 215-676-4

16. Other Information

Document Information This document has been prepared in accordance with directive 88/379/EEC.

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment.

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Data reviewed and PDF file generated: 19/07/07.

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