



MATERIAL SAFETY DATA SHEET

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SECTION 1 - COMPANY INFORMATION

Rust Remover

Product usage: Rust remover
WHMIS Class: E, D1A
TDG Class: See recent bill of lading for current TDG Class
Poison Contrail: In Ontario: 1-800 268-9017 In Toronto: 416 813-5900

Supplier name and address:

Corporate Chemicals & Equipment
7 Neilson Street
St. Catharines, ON L2M 5V9
(905) 682-8888

Manufacturer's name and address

Refer to Supplier



Emergency Telephone# CANUTEC (613) 996-6666

SECTION 2 - HAZARDOUS INGREDIENTS

INGREDIENT	CAS#	%	ACGIH-TLV	LC50	LD50
Ammonium bifluoride	1341-49-7	10 - 20	2.5 mg/m3 as F.	Not available	Not available

SECTION 3 - HAZARDS IDENTIFICATION

Physical state Liquid. [Liquid.]

Emergency overview: **DANGER !**
CAUSES DIGESTIVE TRACT, EYE AND SKIN BURNS.
CAUSES RESPIRATORY TRACT IRRITATION.
Do not ingest. Do not get in eyes, on skin or on clothing. Avoid breathing vapours, spray or mists. Use only with adequate ventilation. Keep container closed. Wash thoroughly after handling.

Routes of entry : Skin contact, Eye contact, Inhalation, Ingestion

Potential acute health effects

Severely irritating to the respiratory system.

Eyes: Corrosive to eyes.

Skin: Corrosive to the skin.

Inhalation: Severely irritating to the respiratory system.

Ingestion: Causes burns to mouth, throat and stomach.

See toxicological information (section 11)

SECTION 4 - FIRST AID MEASURES

Skin: This product contains acid fluoride, dermal exposure to which necessitates the following specific treatment:
a) Immediately remove contaminated clothing and continually flush exposed areas of skin with large volumes of water. Rinsing may be limited to 5 minutes if 0.13% benzalkonium chloride solution or 2.5% calcium gluconate gel is available, with the soaks or gel applied as soon as the rinsing is stopped. If not available, rinsing must continue until medical treatment is rendered.
b) Immediately after thorough washing, use one of the measures below:
1. Begin soaking the affected areas in iced 0.13% benzalkonium chloride solution. Use ice cubes, not shaved ice, in order to prevent frostbite. If immersion is not practical, towels should be soaked with iced 0.13% benzalkonium chloride solution and used as compresses for the burned area. Compresses should be changed



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every 2 to 3 minutes. Soaks or compresses should be continued until pain is relieved or until more definitive medical treatment is provided. Relief of the pain is an indication of the success of treatment; therefore, local anesthetics should be avoided. It is recommended the applier wear chemical protective gloves (e.g. butyl rubber gloves).

2. Gently massage a liberal quantity of calcium gluconate 2.5% gel – commercial preparation, 'HF Antidote Gel' if available or prepare at site by adding 10 mL of 10% calcium gluconate injectable solution to 30 mL of KY jelly or Muko other water soluble gels also suitable. (Note: Taro Gel is physically incompatible with calcium gluconate and must not be used. Do not use calcium chloride as it causes skin necrosis). Apply gel every 15 minutes and massage continuously until pain subsides and/or redness disappears or until medical attention becomes available. It is recommended the applier wear chemical protective gloves, (e.g. butyl rubber gloves).
c) Medical attention must be provided immediately.

Eyes:

d) Exposure to low concentrations may be followed by a delayed onset of symptoms; seek immediate medical attention for all exposures to any concentration of acid fluoride. Flush with water running water for 15 minutes lifting the upper and lower eyelids occasionally. Do not use benzethonium chloride solution on eyes. 1 or 2 drops of 0.5% pontocaine hydrochloride solution followed by a second irrigation for 15 minutes. Get medical attention.

Ingestion:

Get medical attention immediately. Do not induce vomiting. Drink copious amounts of water, milk, lime water, or a solution of calcium gluconate.

Inhalation:

Move victim to fresh air. Give artificial respiration only if breathing has stopped. Give cardiopulmonary resuscitation (CPR) if there is no is no breathing and no pulse. Obtain medical attention immediately.

SECTION 5 - FIRE FIGHTING MEASURES

Conditions of Flammability:

Not flammable by WHMIS criteria. Flash point: None

Means of Extinction:

Not applicable Auto-ignition temperature: Not applicable

Upper flammable limit:

Not applicable Lower flammable limit: Not applicable

Hazardous combustion products:

Hydrogen fluoride fumes and ammonia gas on heating

Explosion Data - sensitivity to mechanical impact and static discharge: None

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures: Wear appropriate protective equipment. Isolate for 800 metres or 0.5 miles in all directions if tank, rail car, or tank truck is involved in fire. Evacuate downwind areas as conditions warrant to prevent exposure and to allow vapours or fumes to dissipate. Spills may expose downwind areas to toxic or flammable concentrations over considerable distances in some cases.

Environmental Precautionary Measures: Prevent entry into sewers or streams, dike if needed.

Procedure for Clean Up: Eliminate all ignition sources. Contain spill by diking. If fire potential exists, blanket spill with alcohol type aqueous film-forming foam or use water fog stream to disperse vapours. Neutralize the residue with sodium carbonate or crushed limestone. Absorb with an inert dry material and place in an appropriate waste disposal container. Flush area with water to remove trace residue

SECTION 7 - HANDLING AND STORAGE

Storage Requirements:

Keep out of reach of children. Do not freeze. Store in a closed container away from incompatible materials.

Shipping Information:

Do not freeze.

SECTION 8 - EXPOSURE CONTROLS & PROTECTIVE EQUIPMENT

Breathing Protection:

Suitable breathing mask or respirator if mists or vapours are present.

Skin Protection:

Rubber gloves, rubber boots.

Eye Protection:

Safety glasses with side shields when there is potential for eye contact

Engineering Controls:

Normal building ventilation is adequate.



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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid	Evaporation Rate:	Same as water.
Odour and Appearance:	Odorless, clear colourless liquid	Boiling Point:	100 Deg. C.
Odour Threshold:	Not available	Freezing point:	-10 Deg. C.
Specific Gravity:	1.12 (Water=1)	pH as supplied:	3 - 4
Vapour Pressure:	Not available	pH use dilution:	3 - 4
Vapour Density:	Not available	Water/Oil Dist. Coeff.:	Not available

SECTION 10 - REACTIVITY & STABILITY DATA

Chemical Unstability:	Product is stable.	Conditions of Reactivity:	None
Incompatibility:	Strong concentrated acids, alkalis, powders, oxidizing and reducing agents as heat and gases may be generated. Contact with metals forms flammable hydrogen gas. Do not mix with chlorine bleach. Product will etch or dissolve glass and silica materials.		
Hazardous Decomposition Products:	Hydrogen fluoride fumes and ammonia gas on heating		

SECTION 11 - TOXICOLOGICAL INFORMATION

Route of Entry: Skin contact, eye contact, inhalation, and ingestion.

Effects of Acute Exposure

Skin: Causes burns which may not be immediately painful or visible. Acid fluorides are absorbed through the skin and attack underlying tissues and bone producing signs of fluorosis such as weight loss, brittleness of bones, anemia, weakness and stiffness of joints.

Eyes: May cause severe burns and permanent eye damage.

Ingestion: Can cause severe mouth, throat and stomach burns. Can affect kidney function and be fatal if swallowed. Profound and possibly fatal hypocalcemia is likely to occur unless medical treatment is promptly initiated.

Inhalation: Mild exposure: Can irritate nose, throat and respiratory system. Severe exposure: Can cause nose and throat burns, lung inflammation and pulmonary edema. Also depletes calcium levels in the body if not promptly treated resulting in death due to hypocalcemia.

Effects of Chronic Exposure: Repeated or prolonged contact may lead to fluorosis. Effects may not be immediately apparent, especially with dilute solutions.

Exposure Limits: Not available	Irritancy of Product:	Not available
Sensitization: Not available	Teratogenicity:	Not available
Carcinogenicity: None	Mutagenicity:	Not available
Reproductive Toxicity: Not available	Toxicologically Synergistic Products:	Not available

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicological Information:

Ingredients	Ecotoxicity - Fish Species Data	Acute Crustaceans	Toxicity: Ecotoxicity- Freshwater Algae Data
Hydrogen Fluoride	LC50 48 h (Leuciscus idus) 660 mg/L	N/A	N/A

Other Information:

Environmental Fate: If the pH is > 6.5, soil can bind fluorides tightly. High calcium content will immobilize fluorides, which can be damaging to plants when present in acid soils. **Environmental Toxicity:** This material is expected to be slightly toxic to aquatic life.

SECTION 13 - WASTE DISPOSAL

Leak and Spill Procedure:	Refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice.
Waste Disposal:	Review federal, provincial, and local government requirements prior to disposal.



SECTION 14 - TRANSPORTATION INFORMATION

DOT (U.S.):

DOT Shipping Name: HYDROFLUORIC ACID

DOT Hazardous Class 8 (6.1)

DOT UN Number: UN1790

DOT Packing Group: II

DOT Reportable Quantity (lbs): Not Available.

Note: No additional remark.

Marine Pollutant: No.

TDG (Canada):

TDG Shipping Name: HYDROFLUORIC ACID

Hazard Class: 8 (6.1)

UN Number: UN1790

Packing Group: II

Note: No additional remark.

Marine Pollutant: No.

SECTION 15 - REGULATORY INFORMATION

Prepared by: Technical Dept.

Telephone: (905) 682-8888

SECTION 16 - OTHER INFORMATION

References: Suppliers Material Safety Data Sheets.

Preparation Date: July 1/2011

NOTICE: The data and information presented herein are based upon tests, research and reports which are considered by us to be reliable and believed to be accurate. The data and information are presented without warranty, guarantee or liability on our part, and are presented to the customer for his own consideration, investigation and verification. If user requires independent information on ingredients in this or any other material, we recommend contact with Canadian Centre for Occupational Health and Safety (CCOHS) in Hamilton, Ontario (905 572-4400)