

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Product Name: : Aluminum Brightener
 Product Use: : Treatment for aluminum surfaces
 Supplier Name and Address: : Corporate Facility Supply
 7 Neilson Street
 St. Catharines, ON L2M 5V9

Telephone: : (905) 682-8888
 Emergency Telephone: : CANUTEC (613) 996-6666

SECTION 2 - HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Physical State: Clear, colourless liquid
GHS Classification:
 Skin Irritation: Category 1
 Eye Irritation: Category 1
 Acute Toxicity: Category 2
GHS Label Elements:
 Hazard Pictograms



Signal Word: Danger
 Hazard Statements: H302 Harmful if swallowed
 H314 Causes severe skin burns and eye damage
 H335 May cause respiratory irritation

Precautionary Statements: **Prevention**
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray
 P262 Do not get in eyes, on skin, or on clothing
 P284 In case of inadequate ventilation wear respiratory protection

Response
 P302 IF ON SKIN: Flush with plenty of water for at least 15 minutes
 P305 IF IN EYES: Flush with plenty of water for at least 15 minutes
 P332+P313 If skin irritation persists, get medical attention

Potential Health Effects:

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 hypocalcaemia.

Skin : Causes burns which may not be immediately painful or visible. Hydrofluoric acid will penetrate skin and attack underlying tissues and bone.

Eyes : May cause severe burns and permanent eye damage.

Ingestion : Can cause severe mouth, throat and stomach burns. Can

Aggravated Medical Condition
Symptoms of Overexposure

affect kidney function and be fatal if swallowed. Profound and possibly fatal hypocalcaemia is likely to occur unless medical treatment is promptly initiated.

: None known

: For hydrofluoric acid: Bone and joint changes in humans (fluorosis). Embryo toxicity ranges in rats are 0.47-5.0mg/m³/4hr daily for duration of gestation.

SECTION 3 - COMPOSITION/ INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS

Chemical Name	CAS-No.	Concentration [%]
Hydrogen Fluoride	7665-39-3	5-15
Sulphuric Acid	7664-93-9	5-15
Phosphoric Acid	7664-38-2	5-25

SECTION 4 - FIRST-AID MEASURES

General Advice

: Move out of dangerous area
Consult a physician
Show this Safety Data Sheet to the doctor in attendance

Inhalation

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

Skin Contact

: Remove contaminated clothing immediately. Wash exposed areas with copious amounts of running water. Use alkaline soap or a 2% solution of sodium bicarbonate if available. If irritation occurs, immerse and soak affected area in a 0.13% iced aqueous benzethonium chloride solution for 15-30 minutes (saturated compresses can be used if area can't be immersed). Get medical attention immediately for even minor burns.

Eye Contact

: Flush with 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

: Do not induce vomiting. If victim is alert and not convulsing, give 1-2 glasses of water to dilute material. Immediately contact local poison control centre. Vomiting should be induced under the direction of a physician or a poison control centre. If spontaneous vomiting occurs, rinse mouth and administer more water. Immediately transport victim to an emergency facility.

SECTION 5 - FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Water fog, carbon dioxide, dry chemical
Specific hazards arising from the chemical	: Oxides of carbon. Hydrogen fluoride fumes are released.
Special protective actions for fire-fighters	: Fire-fighters should wear full protective equipment including a self-contained breathing apparatus. Remove storage vessels from fire zone if possible. Use water spray to cool containers to avoid pressure build-up.
Additional advice	: Not sensitive to mechanical impact or static discharge

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions	: Wear appropriate protective equipment.
Environmental precautions	: Prevent entry into sewers or streams. Dike if needed.
Methods and materials for containment/cleaning up	: Isolate for 800 meters 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. 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.
Additional advice	: None

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling	: THIS PRODUCT IS VERY HAZARDOUS. Avoid contact with skin, eyes, and clothing. Wear proper protective equipment including rubber gloves. Maintain adequate ventilation. Protect containers against physical damage.
Conditions for safe storage	: Properly label all containers. Do not store product in glass containers. Wash thoroughly after handling. Store in a cool dry area WITH CONTROLLED ACCESS. Do not freeze.
Other data	: Polyethylene plastic containers recommended.

SECTION 8 - EXPOSURE CONTROLS/ PERSONAL PROTECTION

Control parameters	: None available
Engineering Controls	: Local exhaust recommended to reduce exposure. Fumes and mist are poisonous and corrosive. Do not mist. Ensure that eyewash stations and safety showers are close to the workstation location
Personal Protective Equipment	
Eye/face protection	: Safety glasses with side shields when there is potential for eye contact. Face shield also recommended for handling large amounts. Contact lenses should not be worn
Hand protection	: Nitrile or rubber gloves are recommended
Skin protection	: Protective coveralls or thick clothing that covers exposed skin
Respiratory protection	: Wear a NIOSH/MSHA approved air-purifying respirator
Hygiene measures	

equipped with chlorine cartridges when vapours reach high levels
: Handle in accordance with good industrial hygiene and safety practice
When using do not eat or drink
When using do not smoke
Wash hands before breaks and at the end of the workday

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: : Clear, colourless liquid
Odor: : Slight, pungent
Odor Threshold: : Not available
pH: : < 1.0
Melting point/ freezing point: : -10°C
Initial boiling point and boiling range: : 102°C
Flash point: : Not available
Evaporation rate: : Not available
Flammability (solid, gas): : Not available
Upper/lower flammability or explosive limits: : Not available
Vapour pressure: : 17.5 mmHg @ 25°C
Vapour density: : Not available
Relative density (g/mL): : 1.10-1.15
Water solubility: : Not available
Solubility in other solvents: : Not available
Partition coefficient: n-octanol/water: : Not available
Auto-ignition temperature: : Not available
Decomposition temperature: : Not available
Viscosity: : As water

SECTION 10 - STABILITY AND REACTIVITY

Reactivity : Product is stable
Chemical Stability : Stable under normal conditions
Possibility of hazardous reactions : Hazardous polymerization will not occur
Conditions to avoid : Hydrogen gas is released when in contact with metals
Incompatible materials : Avoid glass as it is dissolved. Do not mix with chlorinated bleach products as chlorine gas is released.
Hazardous decomposition products : Do not mix with strong acids and alkalis or powders and heat and gases are generated

SECTION 11 - TOXICOLOGICAL INFORMATION

Product Information

Acute toxicity : Severe hydrofluoric acid exposure may result in systematic fluoride poisoning. Hydrofluoric acid can deeply penetrate into tissues. Additionally, the free fluoride ions can bind calcium ions at the cell membrane, increase the potassium permeability and alter the membrane electrical potential. This results in spontaneous depolarization of the nervous tissue. Fluoride is a bone seeker and excessive amounts will produce weakening and degeneration of the bone structure. Intake of more than 6 mg of fluorine per day may result in fluorosis, bone and joint damage, hypocalcaemia and hypomagnesemia can occur from absorption of fluoride ions into the blood stream. After

<p>Skin Corrosion/ Irritation</p> <p>Serious eye damage/irritation</p> <p>Respiratory or skin sensitization</p> <p>Germ cell mutagenicity Carcinogenicity</p> <p>Reproductive toxicity STOT-single exposure STOT-repeated exposure Aspiration hazard</p> <p>Toxicology Data for Ingredients Hydrogen Fluoride Acute oral toxicity</p> <p>Skin irritation Eye irritation Sensitization</p> <p>Sulphuric Acid Acute oral toxicity</p> <p>Skin irritation Eye irritation Sensitization</p> <p>Phosphoric Acid Acute oral toxicity</p> <p>Skin irritation Eye irritation Sensitization</p>	<p>prolonged high intake in adults, bone changes may occur characterized by hardening or abnormal density of bone (osteosclerosis), benign bony growths projecting outward from the surface of the bone. Ingestion and skin contact may cause an abnormal reduction of blood calcium (hypocalcaemia) and kidney damage since fluorides precipitate calcium stored in the body. There may also be heart, asthma, nerve, intestinal and rheumatism problems.</p> <p>: Previous conditions may be aggravated by chronic exposure</p> <p>: Previous conditions may be aggravated by chronic exposure</p> <p>: Previous conditions may be aggravated by chronic exposure</p> <p>: Not available</p> <p>: Not listed by IARC, ACGIH, NTP and OSHA as a carcinogen</p> <p>: Not available</p> <p>: Not available</p> <p>: Not available</p> <p>: Not available</p> <p>: LD50 Not available LC50 (animal) from 456 to 1774 PPM/ 1Hr TLV = 3 PPM or 2.5 mg/m³ Severe burns, not immediately visible</p> <p>: Not available</p> <p>: Not available</p> <p>: Not available</p> <p>: LD50 (oral, rat) 155 mg/kg (dermal, rabbit) >3g/kg LC50 Not available</p> <p>: Not available</p> <p>: Not available</p> <p>: Not available</p> <p>: LD50 (oral, rat) 1500 mg/kg corrosive LC50 (oral, rat) 1530 mg/kg</p> <p>: Not available</p> <p>: Not available</p> <p>: Not available</p>
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SECTION 12 - ECOLOGICAL INFORMATION

Product Information:

<p>Toxicity:</p> <p>Persistence and degradability:</p> <p>Bioaccumulative potential:</p> <p>Mobility in soil:</p> <p>Other adverse effects:</p>	<p>: Not available</p> <p>: Not available</p> <p>: Not available</p> <p>: Not available</p> <p>: Product is corrosive. Since hypochlorite solutions are often used as disinfectants and biocides, product is expected to have some effect on aquatic life at high concentrations</p>
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Toxicology Data for Ingredients:
Sodium hypochlorite

Toxicity: : LC50 Not available
: LC50 Not available
Persistence and degradability: : Not available
Bioaccumulative potential: : Not available
Mobility in soil: : Not available
Other adverse effects: : Not available

SECTION 13 - DISPOSAL CONSIDERATIONS

Product : Neutralize with sodium bicarbonate or lime. Caution is to be taken as heat is generated. Package solid neutralized material in suitable plastic containers such as pails. Dispose of small neutralized amount in landfill site. Sanitary sewer or dry absorbent if available. For large quantities, contact local environmental department or government authorities. Do not dispose in drains, waterways, or soil. Do not contaminate ponds, or ditches with chemical or the used container

SECTION 14 - TRANSPORT INFORMATION

UN Number : UN1790
UN Proper Shipping Name : HYDROFLUOROUS ACID
Transport hazard class(es) : 8
Packing group, if applicable : II
Environmental hazards : Not available
Special precautions for user : Not Available
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable

SECTION 15 - REGULATORY INFORMATION

None available

SECTION 16 - OTHER INFORMATION

Prepared by: Technical Services
Telephone number: (905) 682-8888

Preparation date: October 2014

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)