

MATERIAL SAFETY DATA SHEET

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|--------------|---------------------|
| Flammability | Reactivity |
| Health | Personal Protection |

SECTION I - MATERIAL IDENTIFICATION AND USE

Material Name Scale Away Deliming Solution (1510)
Manufacturer Crown Chemical Products Inc. **Supplier's Name**
Street Address 6125 Netherhart Road **Supplier's Address**
 Mississauga Ontario
 L5T 1G5
Emergency Tel. (905) 564-0904
Chemical Name N/AV **Chemical Family** Acid
Molecular Weight N/AV **Material Use** Scale Delimer

SECTION II - HAZARDOUS INGREDIENTS OF MATERIAL

| Hazardous Ingredients | Approximate Concentration % | C.A.S. N.A. or U.N. Numbers | Exposure Limits | LD ₅₀ /LC ₅₀ Specify Species and Route |
|-----------------------|-----------------------------|-----------------------------|------------------------------------|--|
| Muriatic acid | 10-30 | 7647.01.0 | TLV-TWA 5ppm 7mg/m ³ | 470ppm for 30min. (INHALATION, RAT) |

SECTION III - PHYSICAL DATA FOR MATERIAL

Physical State Liquid **Odour and Appearance** sharp, pungent odour, green
Specific Gravity 1.08 **Evaporation Rate** n/ap **Boiling Point (°C)** 99
Freezing Point (°C) 0 **Solubility in Water (20°C)** completely **% Volatile (by volume)** n/ap
pH n/ap **Density (g/ml)** n/av **Coefficient of Water/Oil Distribution** n/av

SECTION IV - FIRE AND EXPLOSION HAZARD OF MATERIAL

Flammability (If yes, under which conditions:) No
Means of Extinction n/ap
Special Procedures protect firefighters against corrosive fumes and liquid if released
Flashpoint (°C) and Method n/ap **UEL (% By Vol.)** n/ap **LEL (% By Vol.)** n/ap
Auto Ignition Temp. (°C) n/ap **TDG Flammability Classification** N/AP
Hazardous Combustion Products Hydrogen when in contact with metal.
Explosion Data - Sensitivity to Chemical Impact reacts with metals **Rate of Burning** n/av
Explosive Power n/av **Sensitivity to Static Discharge** n/av

SECTION V - REACTIVITY DATA

Chemical Stability Yes. Product loses hydrogen chloride gas upon heating.
Incompatibility to Other Substances Yes. Organic amines, oxides and polymerizable monomers.
Reactivity and Under What Conditions? Reacts with most common metals. May react violently with many inorganic materials. Do not mix with organic amines, oxides and polymerizable monomers.
Hazardous Decomposition Products Hydrogen when in contact with metals; hydrogen chloride gas upon heating.

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SECTION VI - TOXICOLOGICAL PROPERTIES OF PRODUCT

Route Of Entry Skin Contact Skin Absorptior Eye Contact Inhalation Acute Inhalation Chronic Ingestion

Effects Of Acute Exposure To Product Skin - severe burns. Eyes - severe irritation to mucous membranes. Inhalation - coughing, choking. Ingestion - corrosion of mucous membranes esophagus, stomach, nausea vomiting. Circulatory collapse and death may occur.

Effects Of Chronic Exposure To Product Skin - Dermatitis & photosensitization may occur. Eyes - Permanent visual damage may occur. Inhalation - Inflammation and ulceration of respiratory tract may occur.

Irritancy Of Product n/av

Exposure Limits Of Product n/av

Sensitization To Product n/av

Synergistic Materials n/av

Carcinogenicity Reproductive Effects Teratogenicity Mutagenicity

No known systemic effects with above.

SECTION VII - PREVENTIVE MEASURES

Personal Protective Equipment

Gloves Rubber Gloves

Respiratory Canister Type

Eye Goggles

Footwear Rubber Boots

Clothing Rubber if possible

Other Safety Apron

Engineering Controls Local exhaust - prevent condensate of moisture. Control HCL fumes below TLV.

Leak And Spill Procedure Neutralize with soda ash, caustic soda, or lime and wash down with excess water.

Waste Disposal In accordance with local, provincial, and federal by-laws.

Handling Procedures And Equipment Do not use ammonia in the same area due to potential fuming problems.

Storage Requirements Keep containers closed, use with adequate ventilation. Keep out of sun and away from direct sources of heat, metals and oxidizing.

Special Shipping Information Materials (particularly nitric acid and chlorates)

SECTION VIII - FIRST AID MEASURES

Skin Remove contaminated clothing immediately and flush with clean water for at least 15 minutes.

Eye Hold eyelids open and wash thoroughly with clean water for at least 15 minutes. Get medical help immediately.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. Give oxygen by qualified personnel if breathing is difficult. Get medical help immediately.

Ingestion Get medical help immediately. Patient should drink large amounts of water or milk. Do not induce vomiting.

General Advise

SECTION IX - PREPARATION DATE OF M.S.D.S.

Additional Information/Comments The information herein is given in good faith but no warranty, expressed or implied, is made.

Sources Used

Prepared By: Crown Chemical Products Inc. **Phone Number** (905) 564-0904 **Date** June 16, 2006