

# MATERIAL SAFETY DATA SHEET

## Section I

EMS SCALE CUTTER #821-E

46-627 (P)

Issue Date Reviewed 1/4/96  
1/5/91

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Hazard Range 0 = Minimal  
4 = Severe  
Health = 3  
Fire = 0  
Reactivity = 0

## Section II Hazardous Ingredients/Identity Information

Chemical	CAS NO.	% WT.	Exposure Limits (TWAs) in Air ACGIH TLV	OSHA PEL	Other
Hydrochloric Acid	07647-01-0	31.4	5 ppm	5 ppm	N/A

The balance of the components comprises proprietary information.

Shipping name: Hydrochloric Acid Solution N.O.S. 8, UN -1789 Group II

## Section III Physical Data

Physical State: Liquid

Appearance, color and odor: Clear, orange, pungent, irritating odor.

Boiling Point 175°F

Solubility: 100% in water

Vapor Pressure: 210 @ 20°C, 68°F

Density: Air = 1 N/A

pH: 1.0

% Volatiles: N/A

(by volume)

## Section IV Fire and Explosion

Flash Point: N/A

Lower Explosive Limit: N/A

Autoignition Temp: N/A

Upper Explosive Limit: N/A

Unusual Fire & Explosion Hazards: Reacts with active metals (potassium, sodium, calcium, powdered aluminum, zinc, magnesium) to produce flammable Hydrogen gas.

Extinguishing Media: Use water spray, fog, foam, dry chemicals, CO<sub>2</sub>, or other agents as appropriate for surrounding fire.

Special Fire Fighting Procedures: Use self-contained breathing apparatus and full protective equipment.

## Section V Reactivity

Stability: Stable

Hazardous Polymerization: Will Not Occur

Conditions to Avoid: Heat or fire, runoff to sewer, inhalation of gas, sparks where Hydrogen may be present.

Materials to Avoid: Contact with metals and strong oxidizers. Reacts exothermically with alkalis and active metals.

Hazardous Decomposition Products: Flammable hydrogen gas can be produced by the reaction with most metals. Chlorine will be released by mixing with strong oxidizers

## Section VI Health Hazards

Ingestion: Concentrated Hydrochloric Acid causes severe burns of the mouth, esophagus and stomach.

Inhalation: Vapors have an irritating effect on the respiratory tract causing coughing, burning of the throat, choking sensation, bronchitis and pulmonary edema.

Skin: May produce irritation and burns of the skin and mucous membranes, the severity being determined by concentration and duration of exposure.

Eyes: Contact with the eyes may cause severe burns. Unless removed quickly by thorough irrigation with water, prolonged or permanent visual impairment or loss of sight may result.

Carcinogenicity Lists: N/A

Summary of Acute Health Hazards: Respiratory distress, irritation of mucous lining.

Summary of Chronic Health Hazards: Repeated skin contact with concentrated and dilute solutions may cause dermatitis. Inhalation effects usually limited to ulceration and inflammation of nose, throat, and larynx.

Effects of Overexposure: N/A

EMERGENCY AND FIRST AID PROCEDURES

**Ingestion:** If person is conscious, immediately administer large quantities of water. Follow with large quantities of lime water or milk of magnesia. Avoid having an unconscious person vomit. Get prompt medical attention.

**Inhalation:** Move the exposed person to fresh air at once and administer 100% oxygen for 15 to 30 minutes. If breathing has stopped, perform artificial respiration. Keep the affected person warm and at rest. Get medical attention as soon as possible.

**Skin:** Immediately flush contaminated skin with water and wash with soap and water. If large areas of the body are contaminated or if clothing is penetrated, immediately use safety shower preferably removing clothing while under the shower. Flush exposed areas with large amounts of water for at least 15 minutes. Get prompt medical attention. Wash clothing before reuse.

**Eyes:** Immediately flush eyes with a directed stream of water for at least 15 minutes. Forcibly hold eyelids apart to ensure complete irrigation of all eye and lid tissue. Get immediate medical attention.

**Medical Conditions Generally Aggravated by Exposure:** Hydrogen chloride (Muriatic Acid) is a respiratory irritant. Persons with impaired pulmonary function may be at increased risk from exposure. Periodic surveillance is indicated.

Section VII Precautions For Safe Handling and Use

**Spills:** Get protective equipment. Contain spill and pump into marked containers for reclamation or disposal. For small spills, neutralize with soda ash or dilute caustic soda solution and flush to a sewer system in accordance with regulatory permit requirements. If possible, clean up spill area on a dry basis and then flush with plenty of water.

**Handling and Storing:** Store in a cool, dry, well-ventilated area away from heat and oxidizing agents. Use equipment designed for acid service for handling and storage.

**Waste Disposal:** Dispose of spilled or wasted product, contaminated soil and other contaminated materials in licensed landfill or treatment facility in accordance with all local, state and federal regulations.

Section VIII Control Measures

**Respiratory Protection:** Use approved organic vapor acid-gas respirator for areas where airborne exposure is excessive.

**Ventilation:** Provide good general room ventilation to minimize exposure. Use local exhaust ventilation at points of vapor emission. System should be discharged into absorption media.

**Protective Clothing:** Wear protective gloves such as rubber or neoprene to minimize skin contact. Use of rubberized coveralls and rubber shoes are suggested. Wash thoroughly after use.

**Eye Protection:** Wear safety glasses with side shields or chemical goggles. Person subject to muriatic acid exposure should not wear contact lenses.

**Other Protective Clothing or Equipment:** Eye wash and safety shower should be in close proximity.

Section IX Supplemental InformationToxicity Data

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**Acute Inhalation Toxicity:** LC50 (Rat. 1 HR): 3124 ppm.

**Corrosivity (Rabbit):** 0.01 - 15% Concentration: Noncorrosive; 15% Concentration Corrosive.

**Acute Oral Toxicity:** LD50 (Rabbit): 900 MG/KG.

Regulatory Status

Sec 311 of the Clean Water Act lists muriatic acid as a hazardous substance which, if discharged into or upon water, may require immediate response to mitigate danger to public health. Spills of muriatic acid of 5000 or more pounds must be reported to the National Response Center 1-800-424-8802.