FLINN SCIENTIFIC INC.

"Your Safer Source for Science Supplies"

Material Safety Data Sheet (MSDS)

MSDS #: 395.20

Revision Date: February 24, 2003

Section 1 — Chemical Product and Company Identification

Hydrochloric Acid Solution

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

Section 2 — Composition, Information on Ingredients

Hydrochloric Acid (7647-01-0) <2%, Water (7732-18-5) >98%
Synonym: 0.5M or less hydrochloric acid

CAS#: None Established

Section 3 — Hazards Identification

Clear liquid; pungent odor.
Slightly toxic by inhalation and ingestion. Severe body tissue irritant. Corrosive to eyes.
Avoid all body contact.

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Health-1
Flammability-0
Reactivity-0
Exposure-1
Storage-0

0 is low hazard, 3 is high hazard

Section 4 — First Aid Measures

Call a physician, seek medical attention for further treatment, observation and support after first aid.
Inhalation: Remove to fresh air at once. If breathing has stopped give artificial respiration immediately.
Eye: Immediately flush with fresh water for 15 minutes.
External: Wash continuously with fresh water for 15 minutes.
Internal: Give 1 to 2 cups of water or milk, followed by a gastric antacid, such as milk of magnesia. Do not induce vomiting. Call a physician or poison control at once.

Section 5 — Fire Fighting Measures

Non flammable liquid.
Fire Fighting Instructions: Use triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

NFPA CODE

None Established

Section 6 — Accidental Release Measures

Restrict unprotected personnel from area. Remove all ignition sources and ventilate area. Contain spill with sand and absorbent material, neutralize with sodium bicarbonate or calcium hydroxide and deposit in sealed bag or container. See Sections 8 and 13 for further information.

Section 7 — Handling and Storage

Flinn Suggested Chemical Storage Pattern: Inorganic #9. Store with inorganic acids.
Store in a dedicated acid cabinet or in chemical storage area.
Use and dispense in a hood.

Section 8 — Exposure Controls, Personal Protection

Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, chemical-resistant gloves and chemical-resistant apron.
Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire). Exposure guidelines: TWA 5 ppm (OSHA)

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Section 9 — Physical and Chemical Properties

Clear liquid.
Solubility: Soluble in water, alcohol and benzene.
Formula: HCl
Formula Weight: 36.46

Section 10 — Stability and Reactivity

Avoid contact with strong oxidizers, bases, amines, alkali metals, copper, copper alloys, aluminum. Corrodes steel and reacts violently with water.
Shelf Life: Good, if stored safely.

Section 11 — Toxicological Information

Acute effects: Poison, corrosive
Chronic effects: N.A.
Target organs: N.A.

ORL-RBT LD50: 900 mg/kg as hydrochloric acid
IHL-RAT LC50: 3124 ppm/1H as hydrochloric acid
SKN-RBT LD50: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

Section 12 — Ecological Information

Data not yet available.

Section 13 — Disposal Considerations

Please consult with state and local regulations.
Flinn Suggested Disposal Method #24b is one option.

Section 14 — Transport Information

Shipping Name: Not regulated
Hazard Class: N/A
UN Number: N/A

N/A = Not applicable

Section 15 — Regulatory Information

TSCA-listed, EINECS-listed (231-595-7), RCRA code D002.

Section 16 — Other Information

Consult your copy of the Flinn Scientific Catalog/Reference Manual for additional information about laboratory chemicals. This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. Flinn Scientific Inc. assumes no legal responsibility for use or reliance upon this data.

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Flinn Chemical Packaging Prevents Accidents

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