

# FLINN SCIENTIFIC, INC.

## Material Safety Data Sheet (MSDS)

MSDS #: 395.00

Revision Date: June 25, 1998

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### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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#### Hydrochloric Acid

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

CHEMTREC Emergency Phone Number: (800) 424-9300

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### SECTION 2 — COMPOSITION, INFORMATION ON INGREDIENTS

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Hydrochloric Acid, 36.5-38.0%, concentrated

Synonym: Muriatic acid

CAS#: 7647-01-0

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### SECTION 3 — HAZARDS IDENTIFICATION

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Clear liquid; pungent odor; constantly fuming.

Highly toxic by inhalation and ingestion.

Severe corrosive to all body tissues, especially skin and eyes. Avoid all body contact.

#### FLINN AT-A-GLANCE

Health-3

Flammability-0

Reactivity-2

Exposure-3

Storage-3

0 is low hazard, 3 is high hazard

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### SECTION 4 — FIRST AID MEASURES

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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.

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### SECTION 5 — FIRE FIGHTING MEASURES

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Non flammable liquid.

When heated to decomposition, emits toxic fumes of Cl.

**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

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### SECTION 6 — ACCIDENTAL RELEASE MEASURES

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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.

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### SECTION 7 — HANDLING AND STORAGE

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Flinn Suggested Chemical Storage Pattern: Inorganic #9. Store with inorganic acids.

Store in a dedicated acid cabinet and away from any source of water; if an acid cabinet is not available, store in Flinn Saf-Cube. Use and dispense in a hood.

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### SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

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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**

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Clear liquid; pungent odor; constantly fuming.  
Solubility: Soluble in water, alcohol and benzene.  
Formula: HCl  
Formula Weight: 36.46

Specific Gravity: 1.2

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**SECTION 10 — STABILITY AND REACTIVITY**

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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.

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**SECTION 11 — TOXICOLOGICAL INFORMATION**

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

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

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

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**SECTION 12 — ECOLOGICAL INFORMATION**

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Data not yet available.

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**SECTION 13 — DISPOSAL CONSIDERATIONS**

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

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**SECTION 14 — TRANSPORT INFORMATION**

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Shipping Name: Hydrochloric acid  
Hazard Class: 8, Corrosive  
UN Number: UN1789  
N/A = Not applicable

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**SECTION 15 — REGULATORY INFORMATION**

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

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**SECTION 16 — OTHER INFORMATION**

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**Consult your copy of the Flinn Chemical Catalog/Reference Manual  
for additional information about laboratory chemicals**