

# FLINN SCIENTIFIC, INC.

## Material Safety Data Sheet (MSDS)

MSDS #: 395.30

Revision Date: September 29, 2009

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### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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#### Hydrochloric Acid Solution (0.5 M - 3 M)

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 (7647-01-0) 2-10%, Water (7732-18-5) 90-98%

Synonym: 0.5 M-3 M hydrochloric acid

CAS#: None Established

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### SECTION 3 — HAZARDS IDENTIFICATION

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Clear liquid; pungent odor.

Toxic by inhalation and ingestion. Severe body tissue irritant. Corrosive to eyes.

Avoid all body contact.

#### FLINN AT-A-GLANCE

Health-1

Flammability-0

Reactivity-1

Exposure-2

Storage-2

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 at least 15 minutes.

External: Wash continuously with fresh water for at least 15 minutes.

Internal: Give large quantities 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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Nonflammable 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

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### SECTION 6 — ACCIDENTAL RELEASE MEASURES

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Restrict unprotected personnel from area. Ventilate area and contain spill with sand or other inert 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; if an acid cabinet is not available, store in Flinn Saf-Cube. Use and dispense in a hood or well-ventilated lab only.

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### SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

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Avoid contact with eyes, skin, & clothing. Wear chemical splash goggles, chemical-resistant gloves, & 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: PEL-ceiling (concentrated) 5 ppm (OSHA)

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**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

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Clear liquid. pH<1  
Solubility: Soluble in water and alcohol.  
Formula: HCl  
Formula Weight: 36.46

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**SECTION 10 — STABILITY AND REACTIVITY**

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Avoid contact with strong oxidizers, bases, amines, and alkali metals. Corrodes metal including stainless steel.  
Shelf Life: Good, if stored safely.

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**SECTION 11 — TOXICOLOGICAL INFORMATION**

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Acute effects: Corrosive  
Chronic effects: Corrosive to teeth.  
Target organs: Respiratory tract, teeth, skin.

ORL-RBT LD<sub>50</sub>: 900 mg/kg as hydrochloric acid  
IHL-RAT LC<sub>50</sub>: 3124 ppm/1hour as hydrochloric acid  
SKN-RBT LD<sub>50</sub>: 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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Does not biodegrade in soil, may be toxic to aquatic life.

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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**