

## Hydrochloric Acid Solution Less than 0.1 M Safety Data Sheet (SDS)

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Hydrochloric Acid Solution Less than 0.1 M

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261  
Chemtree Emergency Phone Number: (800) 424-9850

Signal Word  
**WARNING**

### SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Acute toxicity, oral, dermal, and inhalation (Category 5). May be harmful if swallowed, inhaled or in contact with skin (H303+H313+H333).

Hazard class: Skin and serious eye damage, corrosion or irritation (Category 2, 2B). Causes skin and eye irritation (H315+H320).

Pictograms



Industrial exposure to hydrochloric acid vapors and mists is listed as a known human carcinogen by IARC (IARC-1).

### SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

| Component Name    | CAS Number | Formula          | Formula Weight | Concentration |
|-------------------|------------|------------------|----------------|---------------|
| Hydrochloric acid | 7647-01-0  | HCl              | 36.46          | <2%>          |
| Water             | 7732-18-5  | H <sub>2</sub> O | 18.00          | >98%          |

### SECTION 4 — FIRST AID MEASURES

Call POISON CENTER or physician if you feel unwell (P312).

**If inhaled:** Call a POISON CENTER or physician if you feel unwell (P304+P312). **If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338). **If eye irritation persists eyes:** Get medical advice or attention (P337+P313). **If on skin:** Wash with plenty of water (P302+P352). **If skin irritation occurs:** Get medical advice or attention (P332+P313).

**If swallowed:** Rinse mouth. Call a POISON CENTER or physician if you feel unwell.

### SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable, noncombustible solution.

In case of fire: Use a tri-class dry chemical fire extinguisher.

NFPA Code  
None established

### SECTION 6 — ACCIDENTAL RELEASE MEASURES

Ventilate area and contain the spill with sand or other inert absorbent material, neutralize with sodium bicarbonate or calcium hydroxide, and deposit in a 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 acids, except nitric acid.

Store in a dedicated acid cabinet or in chemical storage area isolated from metals and bases.

### SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264).

Exposure guidelines: (as concentrated HCl) Ceiling 5 ppm (OSHA); Ceiling 2 ppm (ACGIH); IDLH 50 ppm. Irritation threshold is ~ 5 ppm so any irritation is sign of exposure (per OSHA)

### SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Clear, colorless liquid. Slight acid odor.

pH: 1-2

Soluble: Water and alcohol

### SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with strong oxidizers, bases, amines, and alkali metals. Corrodes metal.

Shelf life: Good, if stored properly.

### SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Irritating to skin, eyes and respiratory tract.

ORL-RBT LD<sub>50</sub>: 900 mg/kg (as concentrated HCl)

Chronic effects: Erodes tooth enamel.

IHL-RAT LC<sub>50</sub>: 3124 ppm/1hour (as concentrated HCl)

Target organs: Respiratory tract, teeth, skin.

SKN-RBT LD<sub>50</sub>: N.A.

### SECTION 12 — ECOLOGICAL INFORMATION

Does not biodegrade in soil, may be toxic to aquatic life.

### SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding.

Flinn Suggested Disposal Method #24b is one option.

### SECTION 14 — TRANSPORT INFORMATION

Shipping name: Hydrochloric acid. Hazard class: 8, Corrosive. UN number: UN1789.

### SECTION 15 — REGULATORY INFORMATION

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

### SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) 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. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

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

N/A = Not applicable

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

Revision Date: December 3, 2018

