

**MATERIAL SAFETY DATA SHEET**

HYDROCHLORIC ACID, SAFETY BOTTLE  
CAROLINA BIOLOGICAL

Revised: 15/05/08  
Replaces: 10/07/07  
Printed: 20/05/08

**1. PRODUCT DESCRIPTION**

Product Name: Hydrochloric Acid  
Product Code(s): 86-7760, 86-7762, 86-7790, 86-7792, 86-7791, 86-7793  
Size: 500ml, 2.5 L  
Chemical Name: Hydrochloric Acid  
CAS Number: 7647-01-0  
Formula: HCl  
Synonyms: Muriatic Acid  
Distributor: Carolina Biological Supply Company  
2700 York Road  
Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)  
Chemtrec (Transportation Spill Response 24 hours): 800-424-9300

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Principle Hazardous Components: Hydrochloric Acid (CAS#7647-01-0) 37%  
TLV and PEL units: OSHA-PEL 5 ppm ceiling  
ACGIH-TLV 5 ppm ceiling

**3. HAZARD IDENTIFICATION**

Emergency Overview: Causes severe burns. May be fatal if inhaled or swallowed. Vapor extremely irritating. May cause damage to respiratory passages and lungs.

Potential Health Effects:

Eyes: May cause irritation.

Skin: May cause irritation.

Ingestion: May cause gastrointestinal discomfort.

Inhalation: May cause irritation to respiratory tract.

**4. FIRST AID MEASURES**

Emergency and First Aid Procedures:

Eyes - Flush with water for at least 15 minutes, raising and lowering eyelids occasionally. Get medical attention if irritation persists.

Skin - Thoroughly wash exposed area for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. Get medical attention if irritation persists.

Ingestion - Do not induce vomiting. If swallowed, if conscious, give plenty of water immediately and call a physician or poison control center. Never give anything by mouth to an unconscious person.

Inhalation - Remove to fresh air. Give oxygen if breathing is difficult; give artificial respiration if breathing has stopped. Keep person warm, quiet, and get medical attention.

**5. FIREFIGHTING PROCEDURES**

Flash Point(Method Used): Non-combustible

NFPA Rating: Health: 3  
Flammability: 0  
Reactivity: 0

Extinguisher Media: Water spray

Flammable Limits in Air % by Volume: No data available.

Autoignition Temperature: No data available

Special Firefighting Procedures:

Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: None cited

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### 6. SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled:

Ventilate area of spill. Eliminate all sources of ignition. Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

### 7. SPECIAL PRECAUTIONS

Precautions to be Taken in Handling or Storing: Keep container tightly closed

in a cool, well ventilated area away from incompatible materials.

Other Precautions: Handle empty containers with caution.

### 8. SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type):

A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Yes

Mechanical (General): Yes

Special: No

Other: No

Protective Gloves:

Rubber, neoprene, PVC, or equivalent.

Eye Protection:

Splash proof chemical safety goggles should be worn at all times.

Other Protective Clothing or Equipment:

Lab apron, eye wash, and safety shower.

### 9. PHYSICAL DATA

Molecular Weight: 36.46

Melting Point: -74 C

Boiling Point: 110 C

Vapor Pressure (mm Hg): 160 at 20 C

Vapor Density (Air=1): 1.25

Specific Gravity (H<sub>2</sub>O=1): 1.1885

Percent Volatile by Volume: 99.9+

Evaporation Rate (BuAc=1): 2.0

Solubility in Water: Miscible

Appearance and Odor: Clear, colorless liquid with an acrid odor.

### 10. REACTIVITY DATA

Stability: Stable

Conditions to Avoid: Heat, contact with metals.

Incompatibility (Materials to Avoid): Bases, alkalies and amines

Hazardous Decomposition Products: Toxic hydrogen chloride gas

Hazardous Polymerization: Will not occur

### 11. TOXICITY DATA

Toxicity Data: ihl-hmn LDLo: 1300ppm/30M

Effects of Overexposure:

Acute: See section 3

Chronic: Tests on laboratory animals indicate material may produce

adverse mutagenic and reproductive effects.

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Conditions Aggravated by Overexposure: Respiratory conditions  
Target Organs: No data available  
Primary Route(s) of Entry: Inhalation, ingestion or skin contact

## 12. ECOLOGICAL DATA

EPA Waste Numbers: D002

## 13. DISPOSAL INFORMATION

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations.

Always contact a permitted waste disposer (TSD) to assure compliance.

## 14. TRANSPORT INFORMATION

Description: Hydrochloric acid, 8, UN1789, II

## 15. REGULATORY INFORMATION

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute

Product or Components	SARA EHS Sec. 302 TPQ	SARA Sec. 313 Chemicals Name List	CERCLA Sec. 103 RQ lbs.	RCRA Sec. 261.33
Hydrochloric acid	500	Yes	No	5000 No

## 16. ADDITIONAL INFORMATION

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

### Glossary

ACGIH.....American Conference of Governmental Industrial Hygienists  
CAS Number..Chemical Abstracts Service Number  
CERCLA.....Comprehensive Environmental Response, Compensation, and Liability Act  
DOT.....U.S. Department of Transportation  
IARC.....International Agency of Research on Cancer  
mppcf.....million particles per cubic foot  
N/A.....Not Available  
NTP.....National Toxicology Program  
OSHA.....Occupational Safety and Health Administration  
PEL.....Permissible Exposure Limit  
ppm.....parts per million  
RCRA.....Resource Conservation and Recovery Act  
SARA.....Superfund Amendments and Reauthorization Act  
TLV.....Threshold Limit Value  
TSCA.....Toxic Substances Control Act