

Material Safety Data Sheet



Hydrochloric Acid, 12M, Concentrated

Revised: 06/21/2012

Replaces: 02/16/2011

Printed: 08/10/2012

Carolina Biological Supply Company

2700 York Rd | Burlington, NC 27215 • to order: 800.334.5551 • for support: 800.227.1150

CAROLINA

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Section 1 - Product Description

Product Name: Hydrochloric Acid

Product Code(s): 867788

Size: 500 mL, 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** 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 - Hazard Identification

Emergency Overview: Causes severe burns. Very toxic by inhalation and if swallowed. May be fatal if swallowed or inhaled.

Potential Health Effects:

Eyes: May cause irritation.

Skin: May cause irritation to skin.

Ingestion: May cause gastrointestinal discomfort.

Inhalation: May cause irritation to respiratory tract.

Section 3 - Composition / Information on Ingredients

Principal Hazardous Components: Hydrochloric Acid (CAS#7647-01-0) 37%

TLV units: ACGIH-TLV 5 ppm (Ceiling)

PEL units: OSHA-PEL 5 ppm (Ceiling)

Section 4 - First Aid Measures

Emergency and First Aid Procedures:

Eyes - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin - After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

Ingestion - If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

Inhalation - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Section 5 - Firefighting Procedures

Flash Point (Method Used): Non-combustible

NFPA Rating:

Health: 3

Fire: 0

Reactivity: 2

Extinguisher Media: Use media suitable to extinguish surrounding fire.

Flammable Limits in Air % by Volume: N/A

Autoignition Temperature: N/A

Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Fire or excessive heat may produce hazardous decomposition products.

Flammable Hydrogen gas may be produced over long periods of exposure to Aluminum, Tin, Lead, and Zinc.

Section 6 - Spill or Leak Procedures

Steps to Take 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.

Section 7 - Special Precautions

Precautions to Take in Handling or Storing: Keep container tightly closed in a cool, well-ventilated place.

Section 8 - Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. 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: Natural rubber, Neoprene, PVC or equivalent.

Eye Protection: Splash proof chemical safety goggles should be worn.

Other Protective Clothing or Equipment: Lab coat, apron, eye wash, safety shower.

Section 9 - Physical Data

Molecular Weight: 36.46

Boiling Point: 110 °C

Vapor Density(Air=1): 1.267

Percent Volatile by Volume: 99+%

Solubility in Water: Soluble

Melting Point: -74 °C

Vapor Pressure: 160 mmHg at 20°C

Specific Gravity (H₂O=1): 1.1885

Evaporation Rate (BuAc=1): 2.0

Appearance and Odor: Clear, colorless liquid; pungent, choking

odor.

Section 10 - Reactivity Data

Stability: Stable

Conditions to Avoid: Heat and sources of ignition.

Metals,

Incompatibility (Materials to Avoid): Bases, Alkalis, Amines, Metals,

Hazardous Decomposition Products: HCl,

Hazardous Polymerization: Will not occur

Section 11 - Toxicity Data

Toxicity Data: ihl-rat LC50 3124 ppm/1H

ihl-hmn LCLo 75 mg/m³

Effects of Overexposure:

Acute: See Section 2

Chronic: Tests on laboratory animals indicate material may produce adverse mutagenic and reproductive effects.

Conditions Aggravated by Overexposure: Respiratory disorders,

Target Organs: N/A

Primary Route(s) of Entry: Inhalation, ingestion, eye or skin contact.

Section 12 - Ecological Data

EPA Waste Numbers: D002

Section 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.

Section 14 - Transport Information

DOT Proper Shipping Name: UN1789, Hydrochloric acid, 8, II, 5000 lbs.

Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute

Name List:

Hydrochloric acid - Yes

Chemical Category:

Hydrochloric acid - No

CERCLA Section 103 RQ(lb.): Hydrochloric acid - 5000

RCRA Section 261.33: Hydrochloric acid - No

Section 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 Services Abstract Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency of Research on Cancer
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