

# MATERIAL SAFETY DATA SHEET

MSDS No: 0015-011.00  
 Revision Date: December 16, 2011  
 Approved by: Dariusz Nijapon

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## Chemical Product and Company Name

Section 1	<b>HYDROCHLORIC ACID, 0.1M</b>	ITEM No: CASE-B003
Product	Hydrochloric acid, Hydrogen chloride	
Synonyms		
CHEMTREC	24 Hour Emergency Phone Number (800) 424-9300	

## Section 2 Composition/Ingredients Information

Chemical Name	CAS#	%	TLV Units
Water	7732-18-5	99%	None established
Hydrochloric Acid	7647-01-0	1%	STEL: 5mg/m <sup>3</sup>

## Section 3 Hazards Identification

**WARNING! CORROSIVE!**  
**TOXIC BY INGESTION AND INHALATION. SEVERE BODY TISSUE IRRITANT.**  
**CORROSIVE TO EYES.**

0 = Minimal	Health	2
1 = Slight	Flammability	0
2 = Moderate	Physical Hazard	0
3 = Serious	Personal Protection	C
4 = Severe		

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## Section 4 First Aid Measures

**INGESTION:** Never give anything by mouth to unconscious person. Rinse mouth and get conscious person drink a glass of milk or water. Do NOT induce vomiting unless directed to do so by medical personnel. Get immediate medical attention.

**INHALATION:** Remove to fresh air. Get medical attention if necessary.

**EYE CONTACT:** Wash immediately with plenty of water, and continue washing for at least 15min., occasionally lifting upper and lower eyelids. Seek medical attention immediately.

**SKIN CONTACT:** Flush thoroughly with mild soap and water. Remove contaminated clothing. Get medical attention if necessary.

## Section 5 Fire Fighting Measures

Nonflammable liquid.

**Extinguishing Media:** Use TriClass, dry chemical extinguisher for surrounding fires.

Use self-contained breathing apparatus and protective clothing. It reacts with oxidizers releasing chlorine gas.

Flash point: N/A

Autoignition temperature: N/A

Explosion limits: Lower: N/A

Upper: N/A

## Section 6 Accidental Release Measures

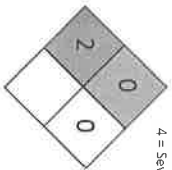
Restrict unprotected personnel from the area. Contain the spill with inert absorbent material. Neutralize with sodium bicarbonate or calcium hydroxide and deposit in a sealed bag or container. Ventilate and wash spill area with soap and water.

## Section 7 Handling and Storage

Read label on container before using. Do not wear contact lenses when working with chemicals. Keep container tightly closed. For laboratory use only. Not for drug, food or household use. Use only under adult supervision.

**Handling:** Use hood or with adequate ventilation. Avoid breathing vapor. Wash hands thoroughly after handling.

**Storage:** Store in a dedicated acid cabinet. Keep container in cool, well-ventilated area.



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 1 = Slight  
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## Section 8 Exposure Controls/ Personal Protection

**Engineering controls:** Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves and chemical-resistant apron. Use hood or ventilation to keep airborne concentrations below exposure limits.

**Respiratory protection:** Non should be needed if normal laboratory handling at room temperature. Use a NIOSH-approved respirator with proper cartridge when handling this material in emergency situations.

## Section 9 Physical and Chemical Properties

**Physical state:** Liquid  
**Appearance:** Transparent, Colorless, Clear,  
 Odor: pungent  
 pH: <2  
**Vapor Pressure ( mm Hg):** not available  
**Vapor Density:** the highest known is 0.62  
**Evaporation Rate:** not available

## Section 10 Stability and Reactivity

**Chemical Stability:** Stable  
**Conditions to Avoid:** High temperatures, sparks open flames and incompatible materials.  
**Incompatibilities:** Alkali metals, metals, organic materials, strong oxidizing agents, amines.  
**Hazardous decomposition:** not available.  
**Hazardous polymerization:** Will not occur.

## Section 11 Toxicological Information

**Effects of overexposure:** Corrosive! Swallowing hydrochloric acid can cause immediate pain and burns of the mouth, throat, esophagus and gastrointestinal tract. Vapors are irritating to mucous membrane and eyes. Splashes may cause severe burns and permanent eye damage. Can cause redness, pain and severe skin burns. Inhalation of vapors can cause coughing, choking, inflammation of the nose, throat, and upper respiratory tract.

Acute oral toxicity ORAL LD<sub>50</sub>: 900mg/kg[Rabbit], as hydrochloric acid  
 Acute vapor toxicity IHL-LC<sub>50</sub>: 3124ppm [Rat]/1h, as hydrochloric acid  
 DERMAL LD<sub>50</sub>: not available

## Section 12 Ecological Information

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

## Section 13 Disposal Considerations

Disposal of in accordance with all local, state, and federal regulations, or contact with a licensed chemical disposal agency.

## Section 14 Transport Information

UN number: 1789  
 Shipping name: Hydrochloric acid  
 Hazard Class: 8  
 Packing group: PG III  
 Exceptions: Ltd Qty, 5SL

## Section 15 Regulatory Information

TSCA-listed, EINECS-listed (231-595-7), DSDL (EEC) R36/38-irritating to eyes and skin.

## Section 16 Other Information

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