

***M S D S******Material Safety Data Sheet***

24 HOUR EMERGENCY  
TELEPHONE NUMBER  
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## **Hydrochloric Acid, Concentrated**

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### **Section I: IDENTIFICATION**

*Product Name:* **Hydrochloric Acid, 5 % Concentrated**

*Ever Scientific Catalog Number(s):* ES658

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### **Section II: COMPOSITION**

<i>Hazardous Component(s):</i>	<i>CAS Number</i>	<i>OHSA PEL, ACGIH TLV/STEL (PPM)</i>		<i>NFPA</i>
Hydrochloric Acid 2% ( <b>Corrosive Liquid</b> )	7647-01-0	5	5/NR	Health 3 Flammability 0 Reactivity 0

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### **Section III: PHYSICAL DATA**

<i>Boiling Point:</i>	~ 224°F	<i>Specific Gravity (H<sub>2</sub>O = 1):</i>	~1.1
<i>Vapor Pressure mm Hg/20 °C:</i>	NE	<i>Percent Volatile by Vol:</i>	NA
<i>Vapor Density (Air 1:1):</i>	NE	<i>Evaporation Rate (ether = 1):</i>	>1
<i>Solubility in H<sub>2</sub>O:</i>	Complete	<i>Appearance &amp; Odor:</i>	Clear liquid, chlorine odor

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### **Section IV: FIRE/EXPLOSION HAZARD**

*Flash Point:* Non-Flammable      *Flammable Limits:* LEL: NA      UEL: NA

*Extinguishing Media:* Water spray, dry chemical, CO<sub>2</sub> and foam

*Special Fire Fighting Procedures:* Wear protective clothing with NIOSH approved breathing apparatus. Products of combustion may be harmful in a fire situation. Do not use direct water stream.

*Unusual Fire & Explosion Hazards:* Hydrogen chloride gas

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### **Section V: REACTIVITY**

*Stability:* Stable      *Material to Avoid:* Strong bases, dissolves most metals

*Hazardous Decomposition or Byproducts:* Oxides of chlorine

*Hazardous Polymerization:* Does not occur      *Conditions to Avoid:* Strong bases

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### **Section VI: HEALTH HAZARDS**

*Routes of Entry:* Inhalation, Skin and Ingestion

*Target Organs:* Respiratory system

*Acute/Chronic:* Corrosive burns may result from the inhalation of fumes. Death may occur due to complications such as circulatory shock or asphyxia.

*Carcinogenicity:* Not classified as a human carcinogen.

*Signs/Symptoms of Exposure:* Skin, eyes and respiratory burns/ulceration of membranes and tissue.

\*\*\*\*\**Emergency First Aid*\*\*\*\*\*

*Skin:* Remove contaminated clothing. Wash affected area with soap and water.

*Eyes:* Thoroughly flush eyes with water. Contact a physician if irritation persists.

*Ingestion:* Rinse mouth with water, provided person is conscious and contact a physician.

*Inhalation:* Remove person to fresh air. If not breathing, give artificial respiration and contact physician.

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**Section VII: SAFE HANDLING**

*Chemical Release or Spill:* Wear full protective clothing especially NIOSH approved respirator. Isolate the spill area with sand, or other absorbent material. Neutralize with sodium carbonate. Place all contaminated material in a closed container for proper disposal.

*Waste Disposal Method:* All liquid and or contaminated material should be disposed of in DOT approved waste containers. Comply with all Federal, State and Local regulations for disposal.

*Precautions for Handling and Storing:* Store in acid safety cabinet. Avoid excessive heat.

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**Section VIII: CONTROL MEASURES**

*Respiratory Protection:* NIOSH approved respirator required.

*Ventilation:* Exhaust hood system for corrosives

*Protective Gloves:* Chemical resistant      *Eye Protection:* Safety glasses

*Other Protective Clothing or Equipment:* Normal laboratory apparel suggested by Good Laboratory Practices

*Work/Hygienic Practices:* Wash thoroughly with soap and water after handling.

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