

MATERIAL SAFETY DATA SHEET

9703606
9703608 9704100
MSDS No. 9717201 9718304
Effective Date: April 8, 2004

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	Hydrochloric Acid Solution	<p>416-984-3000</p> <p>NFPA </p> <p>HAZARD RATING Minimal Slight Moderate Serious Severe 0 1 2 3 4</p> <p>WHMIS 3 2</p>
Chemical Synonyms	Hydrochloric Acid, Water Solution	
Formula	Mixture.	
CAS No.	Mixture.	

SECTION II DANGEROUS INGREDIENTS

Name	%	TLV Units
Hydrochloric acid: (CAS No. 7647-01-0)	1.57 - 10%	TWA: 5 ppm (HCl)
Water: (CAS No. 7732-18-5)	90 - 98.43%	None established.

WARNING! CORROSIVE!

SECTION III PHYSICAL DATA

Melting Point (°C)	0°C	Specific Gravity (H ₂ O = 1)	~ 1.0
Boiling Point (°C)	100°C	Percent Volatile by Volume (%)	90 - 98.43%
Vapor Pressure (mm Hg)	14 (Water)	Evaporation Rate (Water = 1)	< 1
Vapor Density (Air=1)	0.7 (Water)		
Solubility in Water	Complete.		
Appearance & Odor	Clear liquid; pungent odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash point	Non-flammable.	Flammable Limits in Air % by Volume	N/A	Lower	Upper
Firefighting Procedures	Use dry chemical, CO ₂ , alcohol foam, or water spray. In fire conditions, fire-fighters should wear an appropriate mask or a self-containing breathing apparatus.				

Flammability and Explosion Hazards	Non combustible, but contact with common metals produce hydrogen, which may form explosive mixtures in air.
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TDG	Class 8 Corrosive liquid. UN1789
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The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. For laboratory use only. Not for drug, food or household use. Keep out of reach of children. Printed on recycled paper.

SECTION V REACTIVITY DATA HH0090

Chemical Stability	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	If no, under what conditions?
Incompatible with Other products	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Incompatible with alkalies, strong bases, metals, amines, carbonates, metal oxides, cyanides, sulfides, sulfites and formaldehyde.
Hazardous Decomposition Products	Hydrogen chloride fumes.		
Reactive under what conditions	Reactive with water or steam to produce heat and toxic and corrosive fumes.		

SECTION VI TOXICOLOGICAL PROPERTIES

Route of Entry	Skin contact. Ingestion.
TLV	TWA: 5 (ppm)
Toxicity for animals	Acute oral toxicity (LD50): 900 mg/kg (rabbit).
Chronic effects on humans	Repeated or prolonged exposure to the substance can produce target organ damage. Target organs: Respiratory system, skin, eyes, lungs.
Acute effects on humans	Dangerous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion.

SECTION VII PREVENTIVE MEASURES

Waste Disposal	Discharge, treatment, or disposal may be subject to local laws. Consult your local or regional authorities.
Storage	Keep container tightly closed. Keep in a cool well ventilated place. Corrosive materials should be stored in a separate safety cabinet or room.
Precautions	Keep container dry. Keep away from heat. Keep away from sources of ignition. Keep away from combustible materials. Do not ingest. Do not breathe gas, fumes, vapor or spray. Avoid contact with skin. Never add water to this product. Keep away from incompatibles as reducing agents, organic materials, alkalis, moisture.
Spill or leak	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate.
Protective Clothing	Splash goggles. Lab coat.

SECTION VIII FIRST AID MEASURES

Specific first aid measures	Ingestion: Call physician or Poison Control Center immediately. Induce vomiting only if advised by the appropriate medical personnel. Eye contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention. Skin contact: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Inhalation: Move victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Allow victim to rest in a well ventilated area. Seek immediate medical attention.
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SECTION IX PREPARATION OF THE MSDS

Rev. No.	7	Date	April 8, 2004	Approved	Michael Raszeja
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