



**ALDON
CORPORATION**

MATERIAL SAFETY DATA SHEET

1533 W. Henrietta Rd.
Avon, New York 14414
(716) 226-6177

MSDS No. HH 110
Effective Date November 5, 1996

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	HYDROCHLORIC ACID SOLUTIONS
Chemical Synonyms	Hydrochloric Acid 0.5% - 4%
Formula	Mixture.
Unit Size	up to 4 Liters.
C.A.S. No.	Mixture.

CHEMTREC
800-424-9300
Day 716-226-6177

NFPA HAZARD RATING

HEALTH	1
FIRE	0
REACTIVITY	1

HMIS*

LEAST	SLIGHT	MODERATE	HIGH	EXTREME
0	1	2	3	4

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Hydrochloric Acid Solutions: (CAS No. 7647-01-0)	0.5-4%	See Section V.
Water: (CAS No. 7732-18-5)	96-99%	None established.

CAUTION! MAY CAUSE IRRITATION TO

SKIN, EYES AND MUCOUS MEMBRANES.

SECTION III PHYSICAL DATA

Melting Point (°F)	Freezing point 0°C (32°F)	Specific Gravity (H ₂ O = 1)	Approx. 1.0
Boiling Point (°F)	Approx. 100°C (212°F)	Percent Volatile by Volume (%)	100%
Vapor Pressure (mm Hg)	14 (water)	Evaporation Rate (Ether = 1)	Greater than 1.
Vapor Density (Air=1)	0.7 (water)		
Solubility in Water	Complete.		
Appearance & Odor	Clear, colorless liquid; may have acid odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-flammable.	Flammable Limits in Air % by Volume	N/A	Lower	Upper
Extinguisher Media	Use any media suitable for extinguishing supporting fire.				

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing.

(1993 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.5, GUIDE PAGE NO. 60)

UNUSUAL FIRE AND EXPLOSION HAZARDS

Non-combustible, but contact with common metals produce hydrogen which may form explosive mixtures with air.

SECTION V HEALTH HAZARD DATA

HH 110

Threshold Limited Value

Hydrogen chloride as gas or fume: TWA Ceiling Limits.
TWA: 5 ppm; 7 mg/m³ (AIR). (ACGIH 1992-93).

Effects of Overexposure

Hydrochloric acid solutions may cause skin or eye irritation. May be irritant to mucous membranes. **INGESTION:** May be harmful if swallowed. Exercise appropriate procedures to minimize potential hazards.

Emergency and First Aid Procedures

INGESTION: If swallowed, if conscious, give several glasses of water or milk to drink. Do NOT induce vomiting. Call physician immediately. Never give anything by mouth to an unconscious person. **EYES:** Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **SKIN:** Flush with soap and water. If irritation develops, get medical attention. **INHALATION AS MIST:** Remove to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION VI REACTIVITY DATA

Stability	Unstable	Stable	X	Conditions to Avoid	Excessive temperatures or heat.
Incompatibility (Materials to Avoid)	Will react with most metals, alkalies, strong oxidants.				

Hazardous Decomposition Products	Hydrogen chloride gas may be evolved by heating. Hydrogen gas evolved by reaction with metals.				
Hazardous Polymerization	Conditions to Avoid				
May Occur	Will Not Occur	Not applicable.			
	X				

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled

Carefully neutralize with sodium bicarbonate and flush to sewer with copious amounts of water.

Waste Disposal Method

Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only. Carefully neutralize with sodium bicarbonate, soda ash, or lime and flush to sewer with copious amounts of water.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)	None needed in normal laboratory handling. In misty conditions work in ventilation hood or wear NIOSH/MSHA-approved respirator.				
Ventilation	Local Exhaust	None needed.	Special	No.	
	Mechanical (General)	None needed.	Other	No.	
Protective Gloves	Rubber.		Eye Protection	Chemical safety glasses.	
Other Protective Equipment	Smock, apron, eye wash station, goggles, ventilation hood, proper gloves.				

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing

Store in a cool place.
Wash thoroughly after handling.

Other Precautions

Read label on container before using. Do not wear contact lenses when working with chemicals.

Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision No. 8	Date 11/05/96	Approved	Michael Raszeja	Chemical Safety Coordinator	MR
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D.O.T. Hydrochloric acid, Solution, 8, UN 1789, PG II

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20