



**ALDON
CORPORATION**

MATERIAL SAFETY DATA SHEET

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MSDS No. FF 104
Effective Date February 25, 1999

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	FERRIC CHLORIDE 0.1 MOLAR AQ. SOL'N	<p>CHEMTREC 800-424-9300 Day 716-226-6177</p> <p>NFPA HAZARD RATING LEAST SLIGHT MODERATE HIGH EXTREME 0 1 2 3 4</p> <p>HMIS* 0 1 2 3 4</p>	Health	2
Chemical Synonyms	Iron (III) Chloride, Water Solution		Fire	0
Formula	Mixture.		Reactivity	0
Unit Size	up to 4 Lt.			
C.A.S. No.	Mixture. See Section II.			

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Iron (III) Chloride: (CAS No. 7705-08-0)	1.62%	See Section V.
Water: (CAS No. 7732-18-5)	98.38%	None established.

WARNING! CORROSIVE! HARMFUL IF SWALLOWED. MAY CAUSE

BURNS TO SKIN, EYES AND MUCOUS MEMBRANES.

SECTION III PHYSICAL DATA

Melting Point (°F)	Freezes approx. 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 (%)	98.38%
Vapor Pressure (mm Hg)	14 (water)	Evaporation Rate (Water =1)	Slightly < 1
Vapor Density (Air=1)	0.7 (water)		
Solubility in Water	Complete.		
Appearance & Odor	Yellow-orange liquid; no 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

If involved in fire situation, wear a NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO. 154)

UNUSUAL FIRE AND EXPLOSION HAZARDS

In fire conditions resulting in the evaporation of the water of solution hazardous decomposition products may be produced as dust or fume. There are no unusual fire and explosion hazard associated with this solution.

SECTION V HEALTH HAZARD DATA

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Threshold Limited Value

None established for this solution. (ACGIH 1992-93).
1 mg/m³ as Iron (ACGIH 1992-93).

Effects of Overexposure

INHALATION: Dust or mist may cause severe respiratory tract irritation, sore throat, cough, dyspnea, and labored breathing. **SKIN:** Direct contact may cause severe irritation, pain and burns. **EYES:** Direct contact with eyes may cause pain, redness, blurred vision and lacrimation. Corneal injury and burns are possible. **INGESTION:** Vomiting, diarrhea, dehydration, shock, cyanosis, rapid respiration, acidosis, drowsiness, hypothermia, imperceptible pulse.

Emergency and First Aid Procedures

INGESTION: If swallowed, do **NOT** induce vomiting. If conscious, give one or two glasses of water to drink. Get immediate medical attention. Never give anything by mouth to an unconscious person. **INHALATION:** Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get immediate medical attention. **EYES:** Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **SKIN:** Flush thoroughly with water, then wash with mild soap and water.

SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid	Stable under normal temperatures and pressure. Excessive temperature to cause evaporation.
	Stable	X	

Incompatibility (Materials to Avoid)	May be corrosive to metals. Allyl chloride.
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Hazardous Decomposition Products	Thermal decomposition products may include toxic and corrosive fumes of chlorine, hydrochloric acid, iron and/or iron oxide dust.
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Hazardous Polymerization	Conditions to Avoid
May Occur	Will Not Occur
	X
	Not applicable.

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled	Flush to sewer with copious amounts of water. Wash spill area with soap and water.
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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. Flush to sewer with copious amounts of water.
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SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)	None needed in normal laboratory handling. If misty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved respirator.			
Ventilation	Local Exhaust	If misty.	Special	No.
	Mechanical (General)	If misty.	Other	Adequate to maintain below exposure limit.
Protective Gloves	Rubber.		Eye Protection	Chemical safety glasses.
Other Protective Equipment	Lab coat, apron, eye wash station, proper gloves.			

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing	Store in a cool, dry area, away from incompatible substances. Wash thoroughly after handling.
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Other Precautions	Read label on container before using. Do not wear contact lenses when working with chemicals. Avoid contact with skin, eyes, mucous membranes and clothing. Remove and wash contaminated clothing.
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For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision No. 3	Date 2/25/99	Approved Michael Raszeja	Chemical Safety Coordinator	MR
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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. *Hazardous Materials Industrial Standards. Printed on recycled paper.

D.O.T. FERRIC CHLORIDE, SOLUTION, 8, UN 2582, PG III

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