



**ALDON CORPORATION**

# MATERIAL SAFETY DATA SHEET

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MSDS No. MM191  
Effective Date June 26, 1998

## SECTION V HEALTH HAZARD DATA

**Threshold Limited Value** None established for this mixture.

**Effects of Overexposure** **INHALATION AS MIST:** May cause headache, nausea, dizziness, fatigue, and weakness in arms and legs. Chronic effects of overexposure may include central nervous system depression. Exercise appropriate procedures to minimize potential hazards.

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

## SECTION VI REACTIVITY DATA

<b>Stability</b>	<b>Unstable</b>		<b>Conditions to Avoid</b>	Excessive temperature to cause evaporation.
	<b>Stable</b>	X		

**Incompatibility (Materials to Avoid)** None known.

**Hazardous Decomposition Products** Chloride and manganese fumes will result in excess heating.

<b>Hazardous Polymerization</b>		<b>Conditions to Avoid</b>	Not applicable.
<b>May Occur</b>	<b>Will Not Occur</b>		
	X		

## SECTION VII SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled** Flush the aqueous solution down drain with plenty 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.

Flush the aqueous solution down drain with plenty of water.

## 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.

<b>Ventilation</b>	<b>Local Exhaust</b>	<b>If Misty</b>	<b>Special</b>	No.
	<b>Mechanical (General)</b>	None required.	<b>Other</b>	No.

**Protective Gloves** Rubber. **Eye Protection** Chemical safety glasses.

**Other Protective Equipment** Lab coat, apron, eye wash station, proper gloves, ventilation hood.

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing** Store in a cool place. Wash thoroughly after handling. Keep container tightly closed when not in use.

**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.

<b>Revision</b> No. 1	<b>Date</b> 6/26/98	<b>Approved</b> Michael Raszeja	<b>Chemical Safety Coordinator</b> MR
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## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

<b>Product</b>	MANGANESE CHLORIDE, 0.5 MOLAR SOLUTION	 <b>CHEMTREC</b> <b>800-424-9300</b> Day 716-226-6177  <b>NFPA HAZARD RATING</b> LEAST SLIGHT MODERATE HIGH EXTREME 0 1 2 3 4 <b>HMIS *</b> 0 1 2 3 4
<b>Chemical Synonyms</b>	Manganous Chloride Water Solution	
<b>Formula</b>	Mixture	
<b>Unit Size</b>	1 Liter (For Soil Nutrient Kit)	
<b>C.A.S. No.</b>	Mixture	

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Manganese Chloride (CAS No.13446-34-9)	9.9%	See Section V.
Water: (CAS No. 7732-18-5)	90.1%	None established.

**CAUTION! MAY CAUSE IRRITATION TO SKIN, EYES AND**

**MUCOUS MEMBRANES. HARMFUL IF SWALLOWED.**

## SECTION III PHYSICAL DATA

<b>Melting Point (°F)</b>	Freezes approx. 0°C (32°F)	<b>Specific Gravity (H<sub>2</sub>O = 1)</b>	Approx. 1.1
<b>Boiling Point (°F)</b>	Approx. 100°C (212°F)	<b>Percent Volatile by Volume (%)</b>	90.1%
<b>Vapor Pressure (mm Hg)</b>	14 (water).	<b>Evaporation Rate (Water =1)</b>	Less than 1.
<b>Vapor Density (Air=1)</b>	0.7 (water).		
<b>Solubility in Water</b>	Complete.		
<b>Appearance &amp; Odor</b>	Clear, water white, water like liquid; no odor.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point (Method Used)</b>	Non-flammable (NA).	<b>Flammable Limits in Air % by Volume</b>	NA	<b>Lower</b>	<b>Upper</b>
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**Extinguisher Media** Use extinguishing media appropriate for surrounding fire.

### SPECIAL FIREFIGHTING PROCEDURES

Firefighters should wear proper protection equipment and NIOSH/MSHA-approved self-contained breathing apparatus with full facepiece operated in positive pressure mode.

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire or excessive heat may produce hazardous decomposition products such as toxic fumes of chlorides and manganese.

D.O.T. **NON-REGULATED.**

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