



**ALDON CORPORATION**

# MATERIAL SAFETY DATA SHEET

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

MSDS No. FF 190  
Effective Date October 1, 1998

## SECTION V HEALTH HAZARD DATA

FF 190

**Threshold Limited Value** 8 hour TWA: 1 mg/m<sup>3</sup> (as Iron) (ACGIH 1992-93). TLV for soluble salts.  
Toxicity studies: Rat, Oral LD<sub>50</sub> 1480 mg/Kg.

**Effects of Overexposure**  
**INGESTION:** Low in toxicity, but excessive ingestion can produce GI tract disturbances, severe shock, vomiting, liver damage and even death. **EYES:** Contact is irritating and can be damaging. **SKIN:** Contact with the skin, especially if repeated or prolonged, is irritating.

**Emergency and First Aid Procedures**  
**EYES:** Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention. **SKIN:** Flush thoroughly with water, then wash with mild soap and water. **INHALATION:** Remove to fresh air. If illness or discomfort develops, get medical attention. **INGESTION:** If swallowed, if conscious, give one or two glasses of water to drink. Induce vomiting and call physician. Never give anything by mouth to an unconscious person.

## SECTION VI REACTIVITY DATA

<b>Stability</b>	<b>Unstable</b>		<b>Conditions to Avoid</b>	Efflorescent in dry air; oxidizes in moist air forming a brown coating of basic ferric sulfate.
	<b>Stable</b>	X		

**Incompatibility (Materials to Avoid)** Aqueous solutions are oxidized slowly by air when cold, rapidly when hot; rate of oxidation increased by addition of alkali or exposure of light. Alkalies, Nitric acid or strong oxidizers.

**Hazardous Decomposition Products** Thermal decomposition or burning may produce oxides of sulfur (SO<sub>x</sub>).

<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** Sweep up and place in a suitable container for proper disposal. Wash spill area with soap and 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.

Dissolve in water and flush to sewer using copious amounts of water or if uncontaminated material may be disposed of in a sanitary landfill. Check local codes.

## SECTION VIII SPECIAL PROTECTION INFORMATION

**Respiration Protection (Specify Type)** None should be needed in normal laboratory handling. If dusty conditions prevail, wear a NIOSH/MSHA-approved dust mask or respirator.

<b>Ventilation</b>	<b>Local Exhaust</b>	If needed.	<b>Special</b>	No.
	<b>Mechanical (General)</b>	If needed.	<b>Other</b>	No.

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

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

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing** Store in a cool, dry place away from alkaline materials and oxidizing agents. Store at temperature below 24°C (75°F) to prevent caking.  
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.

Wash thoroughly after handling.  
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. 5	<b>Date</b> 10/1/98	<b>Approved</b> Michael Raszeja	<b>Chemical Safety Coordinator</b> 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.

## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

<b>Product</b>	FERROUS SULFATE	 <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>	<b>Health</b>	1
<b>Chemical Synonyms</b>	Iron (II) Sulfate		<b>Fire</b>	0
<b>Formula</b>	FeSO <sub>4</sub> •7H <sub>2</sub> O		<b>Reactivity</b>	0
<b>Unit Size</b>	up to 2.5 Kg.			
<b>C.A.S. No.</b>	7782-63-0			

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Ferrous Sulfate Heptahydrate	Ca 100%	1 mg Fe/m <sup>3</sup>
Contains small amounts of free Sulfuric Acid:	1%	1 mg/m <sup>3</sup>
(CAS No. 7664-93-9)		

**WARNING! HARMFUL IF SWALLOWED. IRRITANT.**

## SECTION III PHYSICAL DATA

<b>Melting Point (°F)</b>	72°C (147°F)	<b>Specific Gravity (H<sub>2</sub>O = 1)</b>	1.897
<b>Boiling Point (°F)</b>	Decomposes.	<b>Percent Volatile by Volume (%)</b>	Non-volatile (NA).
<b>Vapor Pressure (mm Hg)</b>	14.6 mm	<b>Evaporation Rate ( =1)</b>	Non-volatile (NA).
<b>Vapor Density (Air=1)</b>	9.6		
<b>Solubility in Water</b>	About 16 grams per 100 mL. water at 20°C; 48.6 g. at 50°C.		
<b>Appearance &amp; Odor</b>	Greenish-blue crystalline powder; no odor. Hygroscopic.		

## 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 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.

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Hot aqueous solutions rapidly oxidized by air. This material is decomposed at high temperatures to produce toxic and corrosive materials.

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

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