



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/m³ (as Iron) (ACGIH 1992-93). TLV for soluble salts.
Toxicity studies: Rat, Oral LD₅₀ 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

Stability	Unstable	Stable	Conditions to Avoid	Efflorescent in dry air; oxidizes in moist air forming a brown coating of basic ferric sulfate.
		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.
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Hazardous Decomposition Products	Thermal decomposition or burning may produce oxides of sulfur (SO _x).
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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	Sweep up and place in a suitable container for proper disposal. 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.
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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.
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Ventilation	Local Exhaust	If needed.	Special	No.
	Mechanical (General)	If needed.	Other	No.

Protective Gloves	Rubber.	Eye Protection	Chemical safety glasses.
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Other Protective Equipment	Lab coat, eye wash station, proper gloves, goggles, ventilation hood.
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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.
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Other Precautions	Read label on container before using. Do not wear contact lenses when working with chemicals.
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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.

Revision	No. 5	Date	10/1/98	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.

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	FERROUS SULFATE
Chemical Synonyms	Iron (II) Sulfate
Formula	FeSO ₄ •7H ₂ O
Unit Size	up to 2.5 Kg.
C.A.S. No.	7782-63-0

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

NFPA
HAZARD RATING

LEAST	SLIGHT	MODERATE	HIGH	EXTREME
0	1	2	3	4

HMIS *

Health	1
Fire	0
Reactivity	0

SECTION II INGREDIENTS OF MIXTURES

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

WARNING! HARMFUL IF SWALLOWED. IRRITANT.

SECTION III PHYSICAL DATA

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

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-flammable (NA).	Flammable Limits in Air % by Volume	NA	Lower	Upper
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Extinguisher Media	Use any media suitable for extinguishing supporting fire.
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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.
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Approved by U.S. Department of Labor "essentially similar" to form OSHA-20