



**ALDON  
CORPORATION**

# MATERIAL SAFETY DATA SHEET

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MSDS No. FF 210  
Effective Date September 9, 1998

## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	FERROUS SULFIDE	 CHEMTREC 800-424-9300 Day 716-226-6177 NFPA HAZARD RATING LEAST SLIGHT MODERATE 0 1 2 HMIS * HIGH EXTREME 3 4
Chemical Synonyms	Iron Sulfuret, Troilite	
Formula	FeS	
Unit Size	up to 2.5 Kg.	
C.A.S. No.	1317-37-9	

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Ferrous Sulfide	100%	None established.
WARNING! DUST MAY BE HARMFUL IF INHALED OR SWALLOWED.		
CONTACT MAY CAUSE IRRITATION TO MUCOUS MEMBRANES.		
CONTACT WITH ACIDS LIBERATES HYDROGEN SULFIDE, A TOXIC GAS.		

## SECTION III PHYSICAL DATA

Melting Point (°F)	1194°C (2178°F)	Specific Gravity (H <sub>2</sub> O = 1)	4.84
Boiling Point (°F)	Decomposes.	Percent Volatile by Volume (%)	Non-volatile (NA).
Vapor Pressure (mm Hg)	Negligible as solid.	Evaporation Rate (=1)	Non-volatile (NA).
Vapor Density (Air=1)	Data not listed.		
Solubility in Water	Insoluble.		
Appearance & Odor	Brownish-black lumps, rods or granular powder; no odor.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-flammable (NA).	Flammable Limits in Air % by Volume	NA	Lower	Upper
Extinguisher Media	Carbon dioxide, dry chemical, water spray or foam.				

### SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing; wear goggles if eye protection is not provided.

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Yields flammable hydrogen sulfide on contact with acids and sulfur dioxide when burning. Finely divided Ferrous Sulfide may form explosive mixture in air. Hydrogen Sulfide and sulfur dioxide are both extremely toxic gases.

## SECTION V HEALTH HAZARD DATA

FF 210

### Threshold Limited Value

None established. (ACGIH 1992-93).

### Effects of Overexposure

If free gastric acidity is high, the ingestion of Ferrous Sulfide may result in decomposition to hydrogen sulfide in the stomach, with subsequent systemic poisoning. **CONTACT:** Skin contact with Ferrous Sulfide presents very little hazard. **EYE CONTACT:** Particulate hazard only. 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 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 medical attention. **SKIN:** Flush thoroughly with water, then wash with mild soap and water. **INHALATION:** Remove to fresh air. Treat symptomatically. If symptoms of illness develop, get medical attention.

## SECTION VI REACTIVITY DATA

Stability	Unstable		Conditions to Avoid	Acids, high heat. Air and moisture sensitive.
	Stable	X		
Incompatibility (Materials to Avoid)		Contact with acids liberates hydrogen sulfide (H <sub>2</sub> S) a poisonous gas, strong oxidizers.		
Hazardous Decomposition Products			Oxides of Sulfur and Iron.	
Hazardous Polymerization			Conditions to Avoid	Not applicable.
May Occur	Will Not Occur			
	X			

## SECTION VII SPILL OR LEAK PROCEDURES

### Steps to be taken in case material is released or spilled

Recycle or sweep up with care, avoiding contact with acids, strong oxidizers or very high temperatures. Place in a suitable container. 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.

Dispose of in accordance with federal, state and local regulations.

## SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)	None should be needed in normal handling of ferrous sulfide in the laboratory. In contact with acids work in fume hood or wear NIOSH/MSHA-approved self-contained respirator.		
Ventilation	Local Exhaust	Recommended.	Special
	Mechanical (General)	Recommended.	Other
Protective Gloves	Rubber.		Eye Protection
Other Protective Equipment	Smock, apron, eye wash station, fume hood, proper gloves.		

## SECTION IX SPECIAL PRECAUTIONS

### Precautions to be Taken in Handling & Storing

Store in a cool, dry place away from acids, acid fumes, strong oxidizers or fire hazards. Wash thoroughly after handling.

### Other Precautions

Read label on container before using. Do not wear contact lenses when working with chemicals. **NOTE:** Do not depend on odor to detect presence of gas. Hydrogen sulfide gas deadens the sense of smell. Do not breathe dust. Use with adequate ventilation. Avoid contact with skin, eyes and mucous membranes. Remove and wash contaminated clothing.

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

Revision No. 4	Date 9/9/98	Approved Michael Raszeja	Chemical Safety Coordinator	MR
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