

## MATERIAL SAFETY DATA SHEET

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### Section I: IDENTIFICATION

*Product Name:* **Ferric Subsulfate Solution**  
(Monsel's Solution)

*Date Prepared:* 08/15/01  
*Item Number(s):* 3390, 3391, 3391-D  
*Emergency Phone:* 800-424-9300

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### Section II: COMPOSITION

<i>Hazardous Component(s):</i>	<i>CAS Number</i>	<i>OHSA PEL, ACGIH TLV/STEL</i>	<i>NFPA Health 1</i>
Ferric Subsulfate (~21% w/v Fe)	1310-45-8	1mg/m <sup>3</sup>	Flammability 0 Reactivity 0

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### Section III: PHYSICAL DATA

<i>Boiling Point:</i>	~ 212°F	<i>Specific Gravity (H<sub>2</sub>O = 1):</i>	~1.6
<i>Vapor Pressure mm Hg/20°C:</i>	17.5	<i>Percent Volatile by Vol:</i>	NA
<i>Vapor Density (Air 1:1):</i>	0.6	<i>Evaporation Rate (ether = 1):</i>	NA
<i>Solubility in H<sub>2</sub>O:</i>	Complete	<i>Appearance &amp; Odor:</i>	Brownish/red viscous liquid Odor

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### Section IV: FIRE/EXPLOSION HAZARD

*Flash Point:* Non-Flammable      *Flammable Limits:* LEL: NA      UEL: NA  
*Extinguishing Media:* Water spray, dry chemical, CO<sub>2</sub> and foam  
*Special Fire Fighting Procedures:* Wear protective clothing with NIOSH approved breathing apparatus. Products of combustion may be harmful in a fire situation. Do not use direct water stream.  
*Unusual Fire & Explosion Hazards:* None Known

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### Section V: REACTIVITY

*Stability:* Stable      *Material to Avoid:* Reducing agents, metals, most powdered metals and strong acids  
*Hazardous Decomposition or Byproducts:* Oxides of carbon and nitrogen  
*Hazardous Polymerization:* Does not occur      *Conditions to Avoid:* Normal Laboratory Care

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### Section VI: HEALTH HAZARDS

*Routes of Entry:* Inhalation, Skin and Ingestion      *Target Organs:* Kidneys, liver and blood  
*Acute/Chronic:* Product is not expected to cause health hazards when utilizing good laboratory practices.  
*Carcinogenicity:* Not classified as a human carcinogen.  
*Signs/Symptoms of Exposure:* Skin, eyes and respiratory irritation.

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### **Section VI: HEALTH HAZARDS**

*Emergency First Aid:*

**Skin:** Remove contaminated clothing. Wash affected area with soap and water.

**Eyes:** Thoroughly flush eyes with water. Contact a physician if irritation persist.

**Ingestion:** Rinse mouth thoroughly with water, do not induce vomiting and contact a physician.

**Inhalation:** Remove person to fresh air. If not breathing, give artificial respiration and contact physician.

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### **Section VII: SAFE HANDLING**

*Chemical Release or Spill:* Isolate the spill area with sand, or other absorbent material. Neutralize the residue with dilute sodium carbonate. Place all contaminated material in a closed container for proper disposal.

*Waste Disposal Method:* All liquid and or contaminated material should be disposed of in DOT approved waste containers. Comply with all Federal, State and Local regulations for disposal.

*Precautions for Handling and Storing:* Normal Laboratory Care

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### **Section VIII: CONTROL MEASURES**

*Respiratory Protection:* Not normally required.

*Ventilation:* Mechanical or general exhaust is sufficient

*Protective Gloves:* Chemical resistant      *Eye Protection:* Safety glasses

*Other Protective Clothing or Equipment:* Normal laboratory apparel suggested by Good Laboratory Practices

*Work/Hygienic Practices:* Wash thoroughly with soap and water after handling.

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The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Astral shall not be held liable for any damage resulting from handling or contact with this product.

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