



MATERIAL SAFETY DATA SHEET

Ferrous Sulfate

MOIST HEPTAHYDRATE - DRIED HEPTAHYDRATE - MONOHYDRATE

Product/Material: <u>Ferrous Sulfate: Moist Heptahydrate Dried Heptahydrate & Monohydrate</u> Manufacturer's Name: QC Corporation Address: Executive Centre at Hooks Lane 4 Reservoir Circle, Suite 105 Baltimore, Maryland 21208 Emergency Tel. No: (410) 486-0010 Chemtrec Number: (800) 424-9300 Date Prepared: December 1, 1995 Prepared By: Eric Hyatt	<u>Section IV - Fire and Explosion Hazard Data</u> Flash Point: None Flammable Limits: N.A. LEL: N.A. UEL: N.A. Extinguishing Media: N.A. Special Firefighting Procedures: None or N.A. Unusual Fire & Explosion Hazards: None
<u>Section I - Product Identification</u> Trade Name: <u>Ferrous Sulfate: Heptahydrate, Monohydrate</u> Synonym: Copperas, Green Vitriol, Iron Vitriol Chemical Family: Iron (II) Sulfate Formula: $FeSO_4 \cdot 7H_2O$ / $FeSO_4 \cdot 1H_2O$ CAS: 7782-63-0 Moist/Dried Heptahydrate 7720-78-7 Monohydrate HMIS: H1 FO RO, Personal Protection Code -E (Safety glasses, gloves, dust respirators) DOT Category: For Packagings in excess of 1000 lbs: Other Regulated Substances, Solid, N.O.S., 9, NA 3077, III, RQ (Ferrous Sulfate)	<u>Section V - Reactivity Data</u> Stability: Stable Incompatibility: Oxidizing Agents and Alkalies Conditions to Avoid: Extremely high temperatures Hazardous Decomposition or Byproducts: Products of sulfur oxides, i.e.: SO_2 and SO_3 Hazardous Polymerization: Will not occur.
<u>Section II - Hazardous Ingredients</u> Ferrous Sulfate $FeSO_4 \cdot H_2O$ OSHA PEL N.A. ACGIH TLV (1979) Rat. Oral LD50: 1480 mg/m ³ Other Limits: None	<u>Section VI - Health Hazard Data</u> Route(s) of Entry: Inhalation (Yes) Skin (Yes) Ingestion (Yes) <u>Health Hazards (Acute and Chronic):</u> Inhalation: Irritation to trachea and lungs, breathing difficulty. Skin: Irritation to skin, very irritating to eyes. Ingestion: G.I. track irritation, shock, liver damage, tachycardia and death. Carcinogenicity: Not established. Signs and Symptoms of Exposure: Irritation or itching, stinging of eyes, breathing problems, stomach ache, acidic or sour taste. <u>Medical Conditions Generally Aggravated by Exposure:</u> Dermatitis, asthma, conjunctivitis, stomach or digestive problems. <u>Emergency and First Aid Procedures:</u> Flood skin and eyes with water for 15 minutes minimum, remove to fresh air, cover if in shock, remove to physicians care.
<u>Section III - Physical Data</u> Boiling Point: Decomposition at 300° C Vapor Pressure (mm Hg): 0. Vapor Density: N.A. Solubility in Water: 57 gms. in 100 ml water @158° Appearance & Odor: Heptahydrate-Light Blue-Green, Acidic/Sour Monohydrate-Light Gray, Acidic/Sour Specific Gravity: 1.899 14°C / 8° C °Baumé: 68.64	<u>Section VII - Precautions for Safe Handling and Use</u> Steps to be Taken in Case Material is Released or Spilled: Sweep up and repackage or place in receptacle for future disposal. Waste Disposal Method: Remove to properly designated landfill or, if in solution, precipitate with alkali and filter off iron for removal to landfill with pH adjustments of the filtrate and discharge to sewer. Precautions to be Taken in Handling and Storage: Wear gloves, safety goggles, breathing mask and coveralls when handling. Stored materials should be placed in a dry and reasonably temperatured area, preferably below 75° F. Other Precautions: None
<u>Section VIII - Control Measures</u> Respiratory Protection: Dust Mask Protective Gloves: Work Gloves Ventilation: Local Exhaust - None; Special - None Eye Protection: Safety Goggles Mechanical - None; Other - None Clothing or Equipment: Coveralls Work/Hygienic Practices: Available safety showers as well as end of shift clean-up facilities.	