

**SAFETY DATA SHEET**  
**Ferrous Sulfate Heptahydrate**

**1. Product and Company Identification**

**Product Code:** FSH  
**Product Name:** Ferrous Sulfate Heptahydrate  
**Trade Name:** copperas, green vitriol  
**Company Name:** CROWN TECHNOLOGY, INC  
7513 E. 96TH STREET  
Indianapolis, IN 46256  
**Phone Number:** (317)845-0045  
**Web site address:** crowntech.com  
**Emergency Contact:** PERS (800)633-8253  
**Intended Use:** Iron Source

**2. Hazards Identification**

**Acute Toxicity: Oral, Category 4**  
**Skin Corrosion/Irritation, Category 2**  
**Serious Eye Damage/Eye Irritation, Category 2**



**GHS Signal Word:** Warning  
**GHS Hazard Phrases:** H302 - Harmful if swallowed.  
H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.  
**GHS Precaution Phrases:** P264 - Wash hands thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P362+364 - Take off contaminated clothing and wash it before reuse.  
**GHS Response Phrases:** P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P330 - Rinse mouth.  
P302+352 - IF ON SKIN: Wash with plenty of soap and water.  
P332+313 - If skin irritation occurs, get medical advice/attention.  
P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+313 - If eye irritation persists, get medical advice/attention.  
**GHS Storage and Disposal Phrases:** No phrases apply.

**3. Composition/Information on Ingredients**

CAS #	Hazardous Components (Chemical Name)	Concentration
7782-63-0	Ferrous sulfate	100.0 %

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**4. First Aid Measures**

**Emergency and First Aid**

**Procedures:**

**In Case of Inhalation:** If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention. Never give anything by mouth to an unconscious person.

**In Case of Skin Contact:** Wash skin with soap and water.

**In Case of Eye Contact:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If eye irritation persists, get medical advice/attention.

**In Case of Ingestion:** If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**5. Fire Fighting Measures**

**Flash Pt:** No data.

**Explosive Limits:** LEL: No data. UEL: No data.

**Autoignition Pt:** No data.

**Suitable Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.

**Unsuitable Extinguishing Media:** Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

**Fire Fighting Instructions:** Substance is noncombustible.

**Flammable Properties and Hazards:** Non Combustible.

**Hazardous Combustion Products:** sulfur oxides.

**6. Accidental Release Measures**

**Protective Precautions, Protective Equipment and Emergency Procedures:** Not available.

**Environmental Precautions:** Reportable Quantity: 1000 lbs.

**Steps To Be Taken In Case Material Is Released Or Spilled:** Clean up spills immediately, observing precautions in Protective Equipment section.

**7. Handling and Storage**

**Precautions To Be Taken in Handling:** Store in a cool dry place.

**Precautions To Be Taken in Storing:** Keep container closed when not in use.

**Other Precautions:** None.

**8. Exposure Controls/Personal Protection**

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
7782-63-0	Ferrous sulfate	No data.	TWA: 1 mg/m3	No data.

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<b>Recommended Exposure Limits:</b>	Not available.
<b>Respiratory Equipment (Specify Type):</b>	ANSI approved respirator.
<b>Eye Protection:</b>	Goggles.
<b>Protective Gloves:</b>	Wear appropriate protective gloves to prevent skin exposure.
<b>Other Protective Clothing:</b>	Wear appropriate protective clothing to prevent skin exposure.
<b>Engineering Controls (Ventilation etc.):</b>	If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
<b>Work/Hygienic/Maintenance Practices:</b>	Wash thoroughly after handling.

### 9. Physical and Chemical Properties

<b>Physical States:</b>	[ ] Gas [ ] Liquid [ X ] Solid
<b>Appearance and Odor:</b>	Appearance: Bluish green to brown crystals. Odor: metal odor. Odor Threshold: N/A.
<b>pH:</b>	5% Sol 2.5 - 5
<b>Melting Point:</b>	149.00 F (65.0 C)
<b>Boiling Point:</b>	572.00 F (300.0 C)
<b>Flash Pt:</b>	No data.
<b>Evaporation Rate:</b>	No data.
<b>Flammability (solid, gas):</b>	No data available.
<b>Explosive Limits:</b>	LEL: No data. UEL: No data.
<b>Vapor Pressure (vs. Air or mm Hg):</b>	No data.
<b>Vapor Density (vs. Air = 1):</b>	No data.
<b>Specific Gravity (Water = 1):</b>	No data.
<b>Density:</b>	55 LB/CF
<b>Solubility in Water:</b>	46.8g/100g
<b>Octanol/Water Partition Coefficient:</b>	N/A
<b>Autoignition Pt:</b>	No data.
<b>Decomposition Temperature:</b>	572.00 F (300.0 C)
<b>Viscosity:</b>	NE
<b>Molecular Formula &amp; Weight:</b>	FeSO <sub>4</sub> *7H <sub>2</sub> O 278.0

### 10. Stability and Reactivity

<b>Stability:</b>	Unstable [ ] Stable [ X ]
<b>Conditions To Avoid - Instability:</b>	No data available.
<b>Incompatibility - Materials To Avoid:</b>	No data available.
<b>Hazardous Decomposition or Byproducts:</b>	No data available.
<b>Possibility of Hazardous Reactions:</b>	Will occur [ X ] Will not occur [ ]
<b>Conditions To Avoid - Hazardous Reactions:</b>	No data available.

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**11. Toxicological Information**

**Toxicological Information:** CAS# 7782-63-0: Acute toxicity, LD50, Oral, Mouse, 1520. MG/KG. Results: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Mydriasis (pupillary dilation). Behavioral: Convulsions or effect on seizure threshold.  
Gastrointestinal:Nausea or vomiting. ; American Journal of the Medical Sciences., Slack Inc., 6900 Grove Rd., Thorofare, NJ 08086, Vol/p/yr: 230,491, 1955

**Carcinogenicity:** NTP? No IARC Monographs? No OSHA Regulated? No

**12. Ecological Information**

**General Ecological Information:** No data available.  
CAS# 7782-63-0: LC50, Bluegill (Lepomis macrochirus), 51.20 PPM, 96 H, Mortality. Results: Morphological changes. ; Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide Programs, 2000  
LC50, Rainbow Trout (Oncorhynchus mykiss), 20.80 PPM, 96 H, Mortality. Results: Affected fish stopped schooling behavior. Affected fish became hypoactive. ; Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide Programs, 2000  
Effective concentration to 50% of test organisms., Water Flea (Daphnia pulex), 7.100 PPM, 48 H, Intoxication,. Results: No loss of equilibrium observed. ; Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide Programs, 2000

**Results of PBT and vPvB assessment:** No data available.

**13. Disposal Considerations**

**Waste Disposal Method:** Observe all federal, state, and local environmental regulations.

**14. Transport Information**

**LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:** Not regulated as a hazardous material.  
**DOT Hazard Class:**  
**UN/NA Number:**

**15. Regulatory Information**

**EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists**

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
7782-63-0	Ferrous sulfate	No	Yes 1000 LB	No

**This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:**

- |   |   |   |  |
|---|---|---|--|
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Explosive   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Acute toxicity (any route of exposure)                       |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Flammable (gases, aerosols, liquid, or solid)     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Skin Corrosion or Irritation                                 |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Oxidizer (liquid, solid or gas)                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Serious eye damage or eye irritation                         |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Self-reactive                                     | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Respiratory or Skin Sensitization                            |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Pyrophoric (liquid or solid)                      | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Germ cell mutagenicity                                       |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Pyrophoric gas                                    | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Carcinogenicity  |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Self-heating                                      | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Reproductive toxicity  |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Organic peroxide                                  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Specific target organ toxicity (single or repeated exposure) |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Corrosive to metal                                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Aspiration Hazard  |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Gas under pressure (compressed gas)               | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Simple Asphyxiant  |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | In contact with water emits flammable gas         | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | (Health) Hazard Not Otherwise Classified (HNOC)              |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Combustible Dust                                  |   |  |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | (Physical) Hazard Not Otherwise Classified (HNOC) |   |  |

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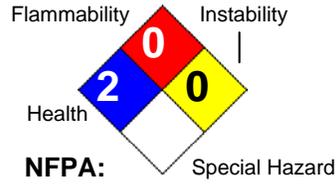
**16. Other Information**

Revision Date: 10/31/2018

Hazard Rating System:

HEALTH		2
FLAMMABILITY		0
PHYSICAL		0
PPE		

HMIS:



Additional Information About This Product: No data available.