NATURAL DYE MATERIAL SAFETY DATA SHEET

SECTION 1--COMPANY IDENTITY

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SECTION 2--CHEMICAL PRODUCT AND COMPOSITION/INFORMATION ON INGREDIENTS

Trade/Common Names	**Botanical Name**
Iron	Ferrous Sulphate Heptahydrate

Chemical Name/Synonyms: Copperas, Iron Sulfate, Green Vitriol, Mineral Black, M04
Chemical Family: Inorganic salt

Name	%	CAS No.	RTECS No.
Ferrous Sulphate	100%	7782--63--0	Unknown

SECTION 3--HAZARDS IDENTIFICATION

No toxic effects known from dust inhalation or ingestion. Inhalation may cause coughing and sneezing. Avoid breathing dust from powders. Avoid contact with eyes. Contact with skin will cause temporary discoloration. Wash thoroughly after handling.

NFPA Rating:	NE		HMIS Rating:	1--0--0--B
Health	2	(Moderate)	Health	2 (Moderate)
Flammability	0	(Insignificant)	Flammability	0 (Insignificant)
Reactivity	0	(Insignificant)	Reactivity	0 (Insignificant)

SECTION 4--FIRST AID MEASURES

Inhalation: Remove person to fresh air. If breathing difficulty occurs, or coughing persists, get prompt medical attention.

Skin/Eye Contact: Flush eyes with plenty of clean water for at least 15 minutes. If irritation persists, get medical attention. Wash skin thoroughly with soap and warm water to remove temporary staining and use emollients if needed.

Ingestion (of quantity): If person is conscious, give water, induce vomiting. Get medical attention.

SECTION 5--FIRE FIGHTING MEASURES

Flash Point: N/A	Flammable Limits: N/A
Extinguishing Media:	Water, carbon dioxide or dry chemical, foam
Unusual Fire & Explosion Hazards:	None Identified
Hazardous Incomplete Combustion Products:	None Identified
Special Fire Fighting Procedures & Equipment:	Material is not flammable. Use extinguishing Media suitable to surrounding materials.

SECTION 6--ACCIDENTAL RELEASE MEASURES

Steps to be taken if material is spilled:	Sweep and pick up for disposal.
On Highway:	Sweep and pick up for disposal.
Disposal Methods:	Per Federal and State regulation.

SECTION 7--HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- DO NOT allow material to contact humans, exposed food or food utensils.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.

- Work clothes should be laundered separately.
- Launder contaminated clothing before re-use.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Empty containers may contain residual dust which has the potential to accumulate following settling. Such dusts may explode in the presence of an appropriate ignition source.
- Do NOT cut, drill, grind or weld such containers
- In addition ensure such activity is not performed near full, partially empty or empty containers without appropriate workplace safety authorisation or permit.

RECOMMENDED STORAGE METHODS

- Polyethylene or polypropylene container.
- Check all containers are clearly labelled and free from leaks.

STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

SECTION 8--EXPOSURE CONTROL/PERSONAL PROTECTION

Respiratory Protection: Dust respirator when handling, sifting, measuring, or dissolving powder.
Eye Protection: Safety goggles when handling, sifting, measuring, or dissolving powder.
Protective Clothing: Protective clothing and gloves to prevent skin contact.
Personal Hygiene: Wash hands after handling.

SECTION 9--PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: Decomposes ＞572 ℉
Melting Point: N/A
Vapor Pressure: N/A
Vapor Density: N/A Air=1
pH (1% solution): 10% solution at 3.3--5
Specific Gravity: 1.898
Solubility: 48.6 g/100ml water at 50 ℉

Physical Appearance: Blue/green crystals, effloresces in dry air, becomes yellow/brown when stored for extended time periods, forming a layer of ferric sulfate.

SECTION 10--STABILITY AND REACTIVITY DATE

Stability:	At ambient temperatures:	Stable
	At elevated temperatures:	Stable
Conditions to avoid:		Moisture. Incompatible with strong bases. Avoid potassium, carbonates, arsenic, and sodium nitrate.
Decomposition products:		Oxides of sulfur

Hazardous polymerizations will NOT occur.

SECTION 11--TOXICOLOGICAL DATA

Classification (29CFR 1910.1200): Non hazardous, non regulated material

Toxicity and Sensitivity Data:

Ingestion Oral LD-50:	1520 mg/kg; intravenous 51 mg/kg
Absorption Dermal:	Not Applicable
Irritation:	Not Applicable
Inhalation Rate:	Not Applicable

Carcinogenicity: This material is not listed as a carcinogen by OSHA, NTP, IARC.

Primary Routes: Inhalation, eyes

Signs and Symptoms of Exposure (progressive):

- Inhalation: Irritation of the respiratory tract.
- Skin/eyes: Severe irritation and corrosion of the eye, possibly resulting in conjunctivitis. Possible skin irritation with prolonged exposure.
- Ingestion: Severe heartburn, nausea, gastric discomfort, constipation, or diarrhea. Sever hemorrhagic gastritis with abdominal pain, retching, violent diarrhea, and nausea may occur. Circulatory system may be affected with symptoms of shock, rapid, weak, or no pulse; severe hypotension and pulmonary changes with dysapnea and emphysema may occur. The average lethal dose of iron is about 200 to 250 mg per kg of body weight. Chronic exposure has shown reproductive effects in animals.

SECTION 12--ECOLOGICAL CONSIDERATIONS

Further ecological effects: Natural product. Environmentally not hazardous.

Water hazard class: 0

SECTION 13--DISPOSAL CONSIDERATIONS

Disposal Instructions
All waste must be handled in accordance with local, state and federal regulations.
Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.
A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction
- Reuse
- Recycling
- Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.
DO NOT allow wash water from cleaning equipment to enter drains. Collect all wash water for treatment before disposal.

- Recycle wherever possible.
- Consult manufacturer for recycling options or consult Waste Management Authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: Burial in a licensed land-fill or Incineration in a licensed apparatus (after admixture with suitable combustible material)
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

SECTION 14--TRANSPORT CONSIDERATIONS

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: DOT, IATA, IMDG

SECTION 15--REGULATORY INFORMATION

THIS MATERIAL IS NOT SUBJECT TO REGULATION.

Component TSCA Inventory CERCLA RQ SARA EHS TPQ SARA 313 Toxic Release

Ferrous Sulfate

SECTION 16--OTHER INFORMATION

LIMITED EVIDENCE

- Cumulative effects may result following exposure*. * (limited evidence).

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- The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.