



Safety Data Sheet

Report
Date 03-Dec-19

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1. Identification

Product Name : PRO-MATE 5 FE
Synonyms : None
Product Use : Chelated micronutrient - Iron
Manufacturer/Supplier : Helena Agri-Enterprises, LLC
Address : 225 Schilling Blvd. Collierville, TN 38017
General Information : 901-761-0050
Transportation Emergency Number : CHEMTREC:800-424-9300

2. Hazard Identification



Signal Word : Danger
Skin Irritation : Corrosive to skin (based on pH).
Eye Irritation : Corrosive to eyes (based on pH).
Acute Toxicity Oral : LD50 1,520 mg/kg (ferrous sulfate heptahydrate component).
Acute Toxicity Dermal : No data available

Hazard Categories : Oral/Dermal/Inhalation Toxicity-4/5/5; Eye/Skin Irritation-1/1C

Hazard Statement : Harmful if swallowed
May be harmful in contact with skin
May be harmful if inhaled
Causes severe skin burns and eye damage

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Water-based solution of ferrous sulphate and citric acid with non-hazardous formulation aids. NOTE: Citric acid is the chelating agent.	Proprietary	100.00
GUARANTEED ANALYSIS:		
Sulfur (S):		3.00%
3.00% Combined Sulfur		
Iron (Fe):		5.00%
5.00% Chelated Iron		

4. First Aid Measures

Eye : Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.

Skin : Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

Inhalation : Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Ingestion : Call a poison control center or doctor immediately for treatment advice. Rinse mouth with water. Do not induce vomiting. Do not give anything by mouth if unconscious.

Indication of Immediate Medical Attention and Special Treatment Needed : In the event of an adverse response, treatment should be directed toward control of the symptoms.



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5. Fire Fighting Measures

- Extinguishing Media** : Non-combustible liquid. Use extinguishing media suitable for underlying cause of fire.
- Specific Hazards Arising from the Chemical** : Product may emit toxic fumes under fire conditions.
- Special Fire Fight Proc** : Wear self-contained breathing apparatus and full protective clothing. Use water spray to keep fire-exposed containers cool.

6. Accidental Release Measures

- Personal Precautions** : Keep unprotected and unnecessary personnel out of spill area.
- Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Respiratory protection only needed if misted or dried. Eyewash should be available in work area.
- Emergency Procedures** : Do not contaminate water supplies with spilled product.
- Methods and Materials for Containment and Cleanup** : Contain spilled product and reuse if uncontaminated. If contaminated, absorb with an inert material, such as clay, sand or sawdust. Collect and place in suitable container for proper disposal.

7. Handling and Storage

- Precautions for Safe Handling** : Keep locked up and out of reach of children. Do not contaminate water, food or feed by storage, handling or disposal. Keep container tightly closed.
- Conditions for Safe Storage** : Store in original container only. Do not allow water to be introduced into the contents of the container.

8. Exposure Controls / Personal Protection

- TLV/PEL** : Ferrous sulfate heptahydrate: TLV = 1 mg/m3.
- Appropriate Engineering Controls** : Local exhaust is sufficient.
- Personal Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Respiratory protection only needed if misted or dried. Eyewash should be available in work area.

9. Physical and Chemical Properties

- Odor/Appearance** : Clear colorless to very pale blue liquid.
- Flash Point, °F** : Non-combustible
- Boiling Point, °F** : >100 Degrees C.
- Melting Point(Freezing point), °C** : Not applicable
- Vapor Pressure, mm Hg @ 20 °C** : Not determined
- Vapor Density** : Not determined
- Solubility in Water** : Soluble
- Molecular Formula** : Not applicable, formulated mixture.
- Density, g/mL @ 25 °C** : 1.190-1.220
- Evaporation Rate(Butyl Acetate = 1)** : Not determined
- Octanol/Water Partition Coefficient** : No information found
- pH** : 2.0 to 3.0 (1%)



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Flammable Limits (approximate volume % in air) : Not applicable
Auto-ignition Temperature : Not applicable
Decomposition temperature : No information found

10. Stability and Reactivity

Reactivity : No information found
Chemical Stability : Stable
Hazardous Decomposition : May produce sulfur dioxide under fire conditions.
Products
Hazardous Polymerization : Will not occur
Conditions to Avoid : None currently known.
Incompatible Materials : Product may react vigorously with alkaline materials.

11. Toxicological Information

Acute Toxicity (Oral LD50) : 1,520 mg/kg for ferrous sulfate heptahydrate. Harmful if swallowed.
Acute Toxicity (Dermal LD50) : No LD50 available. May be harmful in contact with skin.
Acute Toxicity Inhalation LC50 : No LC50 available. May be harmful if inhaled.
Likely Routes of Exposure : Skin, eyes, ingestion, inhalation
Skin Irritation : Causes severe skin burns and eye damage. (Corrosive based on pH)
Eye Irritation : Causes serious eye damage. (Corrosive based on pH)
Skin Sensitization : Not a skin sensitizer.
Carcinogenic : None currently known.
Chronic Effects : None currently known.
Other Hazards : CA PROPOSITION 65 WARNINGS: No listed ingredients appear on the CA PROPOSITION 65 WARNINGS listing.

12. Ecological Information

Ecotoxicity : No information found
Persistence and Degradability : No information found
Bioaccumulative Potential : No information found
Mobility in Soil : No information found
Other Adverse Effects : No information found

13. Disposal Considerations

Waste Disposal Method : This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

14. Transport Information

UN Proper Shipping Name : Not regulated by DOT in single containers ≤ 419.11 gallons.
Transport Hazard Class : None
UN Identification Number : None
Packaging Group : None
Environmental Hazards : No information found



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Transport in Bulk : If shipped in single package >419.11 gallons, ship as: RQ, UN3082, Environmentally Hazardous Substance, Liquid, n.o.s., (Ferrous Sulfate Heptahydrate), 9, PG III "ERG # 171"

Special Precautions for Transportation : No information found

Freight Classification : Fertilizing Compound, (Manufactured Fertilizer), Liquid, NOIBN (NMFC Item 68140, Sub 6, Class 70)

15. Regulatory Information

National Fire Protection Association Rating

Health: 2 Fire: 0 Reactivity: 0
Rating Level: (4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

S.A.R.A Title III Hazard Classification (Yes/No)

Immediate(Acute) Health: Y
Delayed (Chronic) Health: N
Sudden Release of Pressure: N
Fire: N
Reactive: N

16. Other Information

Data of Preparation/Revision : 03-December-2019