



Iron Plus

Safety Data Sheet

Revision Date: 2/2/2022

Version 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Name: Iron Plus
Product Form: Mixture
Synonyms: ESL Iron 5%, ESL-013

1.2. Intended Use of the Product

Agricultural Industry: Fertilizer

1.3. Name, Address, and Telephone of the Responsible Party

Marco NPK
201 East Benton Street
Clinton, IL 61727
(217) 935-2178
www.marconpk.com

1.4. Emergency Telephone Number

For Transportation Emergencies call Hazmat Response at (800) 229-5252
For Other Emergencies call 911 and/or Appropriate Regulatory Agencies

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US Classification

H314

Full text of H-phrases: see section 16

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US):



Signal Word (GHS-US):

Danger

Hazard Statements (GHS-US):

H314 - Causes severe skin burns and eye damage

Precautionary Statements - Prevention:

Do not breathe dusts or mists.
Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection, face protection.

Precautionary Statements - Response:

Immediately call POISON CENTER or doctor.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call POISON CENTER or doctor.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call POISON CENTER or doctor.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Precautionary Statements - Storage:

Store locked up.

Precautionary Statements - Disposal: Dispose of contents/container to an approved waste disposal plant.

2.3. Other Hazards

No additional information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Ferrous sulfate heptahydrate	(CAS No) 7782-63-0	24-26	Not classified

Full text of H-Phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

General: Immediately call a poison center or doctor/physician

Inhalation: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor/physician

Skin Contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call poison center or doctor/physician.

Ingestion: Rinse mouth. Do NOT induce vomiting

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Skin Contact: Causes severe skin burns.

Eye Contact: Causes eye damage.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to Physician - Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media: Not determined.

5.2. Special Hazards Arising From the Substance or Mixture

May react with high carbon metals to produce hydrogen gas, which can form an explosive mixture.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions closed containers may rupture.

Firefighting Instructions: Wear self-contained breathing apparatus and full protective clothing. Avoid exposure to smoke and fumes. Contain any run-off.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions: Caution should be exercised regarding personal safety and exposure to released product. Keep unnecessary people away, isolate hazard area and deny entry.

6.2. Environmental Precautions

See Section 12 for additional Ecological Information.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Flush with water into retaining area or container.

Methods for Cleaning Up: Neutralize solution with bicarbonate of soda.

6.4. Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection. See Section 13, Disposal Considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Advice for Safe Handling: Do not breathe dusts or mists. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing and eye/face protection.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store locked up. Store in a safe place away from pets and keep out of the reach of children. Store away from excessive heat. Product will freeze. Always store product about 32 degrees F (Do Not Freeze). Freezing may cause product separation. Always keep container closed. Keep away from galvanized pipe and any nylon storage or handling equipment.

Incompatible Materials: Strong base. Strong oxidizing agents. Strong reducing agents.

7.3. Specific End Use(s)

Agricultural Industry: Fertilizer

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure Guidelines

Chemical name	ACGIH	OSHA PEL	NIOSH IDLH
Ferrous sulfate heptahydrate 7782-63-0	TWA: 1 mg/m ³ Fe	(vacated) TWA: 1 mg/m ³ Fe	TWA: 1 mg/m ³ Fe

8.2. Exposure Controls

Appropriate Engineering Controls:

Showers. Eyewash stations. Ventilation systems.

Personal Protective Equipment:



Hand Protection:

Wear chemically resistant protective gloves.

Eye/Face Protection:

Wear eye/face protection.

Skin and Body Protection:

Wear long-sleeved shirt, long pants, and shoes plus socks.

Respiratory Protection:

Refer to 29 CFR 1910.134 for respiratory protection requirements. respiratory protection should be worn.

General Hygiene Considerations:

Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State:	Liquid
Appearance:	Green liquid
Color:	Green
Odor:	Minimal
Odor Threshold:	Not determined
pH:	<0.5
Evaporation Rate:	Not determined
Melting Point:	Not determined
Boiling Point:	Not determined
Flash Point:	Not determined
Auto-ignition Temperature:	Not determined
Decomposition Temperature:	Not determined
Flammability (solid, gas):	Liquid - Not applicable
Lower Flammable Limit:	Not determined
Upper Flammable Limit:	Not determined

Vapor Pressure:	Not determined	
Vapor Density:	1.0	(Air=1)
Relative Density:	1.15-1.25	
Water Solubility:	Completely soluble	
Solubility in other solvents:	Not determined	
Partition Coefficient:	Not determined	
Kinematic Viscosity:	Not determined	
Dynamic Viscosity:	Not determined	
Explosive Properties:	Not determined	
Oxidizing Properties:	Not determined	

SECTION 10: STABILITY AND REACTIVITY

- 10.1. **Reactivity:** Not reactive under normal conditions.
- 10.2. **Chemical Stability:** Stable under recommended storage conditions.
- 10.3. **Possibility of Hazardous Reactions:** None under normal processing.
- 10.4. **Conditions to Avoid:** Incompatible Materials.
- 10.5. **Incompatible Materials:** Strong bases. Strong oxidizing agents. Strong reducing agents.
- 10.6. **Hazardous Decomposition Products:** Oxides of iron. Oxides of sulfur.
- 10.7. **Hazardous Polymerization:** Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on likely routes of exposure

- Eye Contact:** Avoid contact with eyes.
- Skin Contact:** Avoid contact with skin.
- Inhalation:** Do not inhale.
- Ingestion:** Do not ingest.

11.2. Component Information

Not determined

11.3. Symptoms related to the physical, chemical, and toxicological properties

- Skin corrosion/irritation:** Causes severe skin burns.
- Serious eye damage/eye irritation:** Causes severe eye damage.
- Carcinogenicity:** Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

11.4. Numerical measures of toxicity

LD50 and LC50 Data:

Ferrous sulfate heptahydrate (7782-63-0)	
LD50 Oral Rate	86,71.672 mg/kg
LD50 Dermal Rate	43,521.70 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

- 12.1. **Ecotoxicity:** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
- 12.2. **Persistence/Degradability:** Not determined.
- 12.3. **Bioaccumulation:** There is no data for this product.
- 12.4. **Mobility:** Not determined.
- 12.5. **Other Adverse Effects:** Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

- Disposal of Wastes:** Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging:

Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14: TRANSPORT INFORMATION

- 14.1. In Accordance with DOT Not regulated for transport
 14.2. In Accordance with IMDG Not regulated for transport
 14.3. In Accordance with IATA Not regulated for transport

Note: Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

SECTION 15: REGULATORY INFORMATION**15.1. International Inventories**

Ferrous sulfate heptahydrate (7782-63-0)
Listed on the United States TSCA (Toxic Substances Control Act) Inventory
Listed on the Japan Existing and New Chemical Substances
Listed on the China Inventory of Existing Chemical Substances
Listed on the Philippines Inventory of Chemicals and Chemical Substances
Listed on the Australian Inventory of Chemical Substances

15.2. US Federal Regulations**CERCLA**

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ferrous sulfate heptahydrate 7782-63-0	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

CWA (Clean Water Act)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ferrous sulfate heptahydrate				X

US State Regulations

California Proposition 65: This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Ferrous sulfate heptahydrate 7782-63-0		X	X

15.3. Canadian Regulations

This product is not offered for sale in Canada.

SECTION 16: OTHER INFORMATION**GHS Full Text Phrases:**

H314	Causes severe burns and eye damage
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NFPA Health Hazard: 2 - Can cause injury. Requires prompt treatment.

NFPA Fire Hazard: 0 - Materials that will not burn.

NFPA Reactivity: 1 - Normally stable. Unstable at high temperature and pressure.

HMIS Health Hazard: 2



HMIS Flammability:	0
HMIS Physical Hazards:	1
HMIS Personal Protection:	X

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