



MATERIAL SAFETY DATA SHEET
PRODUCT: Huma-MnFe

Section 1 – Chemical Product & Company Identification

Trade Name: Huma-MnFe
Chemical Family: Mixture
Product Description: A blend of humic acid with compounded and complexed Manganese and Iron which is non-hazardous.
Manufacturer: 3 Tier Technologies, LLC
250 National Place, Suite 142, Longwood, FL 32750
Technical Support: 877-226-7498
Chemical Emergency: 407-808-4653
Issue Date: 03/24/2015

Section 2 – Hazards Identification

Emergency overview: Avoid contact with eyes. Mild skin irritation.

Potential health effects:

Eyes: Contact with eyes may cause severe irritation.
Skin: May cause irritation upon prolonged contact.
Inhalation: None known
Ingestion: May cause irritation/nausea if ingested in large quantities

Section 3 – Composition / Information on Ingredients

Components	CAS #	Percent
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Huma-MnFe is a blended composition "not considered hazardous" under the OSHA Hazard Communication Standard CFR Title 29 1910.1200. All ingredients appear on the EPA TSCA Inventory.

Humic Acid	1415-93-6	90%
Manganese	7439-96-5	5%
Iron	7439-89-6	5%

Ingredients of <1% have been added to a non-hazardous liquid organic substrate. Active components >5% are identified above.

Section 4 – First Aid Measures

First aid procedures

- Eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.
- Skin Contact:** Flush skin with large amounts of water. Remove any contaminated clothing and wash before reuse. Seek medical attention if irritation occurs.
- Inhalation:** If symptoms are experienced, remove source of contamination and/or move victim to fresh air. If breathing is difficult, have trained personnel administer oxygen. If respiration stops, have trained personnel administer artificial respiration. Get medical attention immediately.
- Ingestion:** Give large amounts of water. Do not induce vomiting. If vomiting occurs prevent aspiration by keeping victim's head below the knees. Get immediate medical attention.

Section 5 – Fire Fighting Measures

Flash Point: None

Extinguishing

Media: Water fog or fine spray, carbon dioxide, dry chemical or foam. No special requirements

Fire fighting

Protection: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6 – Accidental Release Measures

Personal

Precautions: Isolate area. Keep unnecessary personnel away. Keep out of low areas. Ventilate closed spaces before entering. Use of safety glasses and impervious gloves recommended.

Environmental

Precautions: Prevent further leakage or spillage if safe to do so.

Methods for

Containment: Prevent entry into waterways, sewers, basements or confined areas.

Methods for

Clean-up: Wear appropriate protective equipment and clothing during clean-up.

Large spill: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Dispose in accordance with all local, state and federal regulations.

Small spill: Follow same procedure as above.

Section 7 – Handling and Storage

Handling: Avoid contact with skin and eyes. Wash hands thoroughly after handling.

Storage: Store this product below 120°F (49°C), preferably below 75°F (24°C), in a cool, dry, well ventilated area away from heat, sparks, flame, oxidizers and out of direct sunlight. For best results, use within 24 months.

Section 8 – Exposure Controls, Personal Protection

Personal Protection

General: Eye wash fountain is recommended. Minimize exposure in accordance with good hygiene practices. Keep out of reach of children.

Eyes: Wear chemical goggles.

Skin: Suitable protective clothing is recommended but not required. Use impervious gloves.

Respiratory: None required for recommended use. Avoid creating aerosols in poorly ventilated areas.

Section 9 – Physical & Chemical Properties

Vapor Pressure:	Equivalent to Water
Vapor Density (air = 1):	Equivalent to Water
Specific Gravity:	1.1-1.5 approx.
Solubility in water:	Complete
VOC:	Negligible
Appearance:	Brown/Black Liquid
pH:	7.5 – 9.5
Boiling Point:	>212°F (100°C)
Flash Point:	None
Freezing Point:	<32°F (0°C)
Evaporation Rate:	Not Determined
Weight:	8.7 – 9.2 lbs/gallon
Odor:	Natural / Earthy

Section 10 – Stability & Reactivity

Chemical Stability: Stable at normal conditions.

Incompatible Materials: Strong oxidizing agents, alkalis

Hazardous Decomposition

Products: None known.

Conditions to avoid: See Section 7.

Hazardous Polymerization: Will not occur.

Section 11 – Toxicology Information

Toxicology data: Not available.

Section 12 – Ecological Information

Ecotoxicity: Readily biodegradable.

Section 13 – Disposal Considerations

Disposal instructions: Dispose in accordance with all applicable regulations. All wastes must be handled in accordance with local, state and federal regulations. Regulations vary.

Section 14 – Transportation Information

General information: Non-hazardous.

US DOT: Not regulated.

Proper Shipping Description: Class 55

Section 15 – Regulatory Information

TSCA Inventory Status: This product and/or all of its components are either included on or exempt from the TSCA Inventory of Chemical Substances.

DSL (Canada): This product and/or all of its components are either included on or exempt from the Domestic Substances List.

Section 16 – Other Information

HMIS ratings: Health: 1
Flammability: 0
Physical hazard: 0

NFPA ratings: Health: 1
Flammability: 0
Reactivity: 0

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