

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED BY:

First Turf and Ornamental Corp.
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PRODUCT NAME: MicroIron 1-0-0
CHEMICAL NAME: Organic acid solution / Chemical Fertilizer Mixture

Date of Issue: 5/18/2024

2. HAZARDS IDENTIFICATION SUMMARY

Hazard Classification: Skin irritant, Category 2
Eye irritant, Category 2A

Signal Word: "CAUTION"

Hazard Statements:

H315-Causes skin irritation
H320-Causes eye irritation
H335-May cause respiratory irritation
H333-May be harmful if inhaled
H303-May be harmful if swallowed



Precautionary Statements:

(PREVENTION)

P260-Do not breathe mist/vapors/spray
P264-Wash thoroughly after handling
P270-Do not eat, drink or smoke when using this product
P271-Use only outdoors in a well-ventilated area
P273-Avoid release to the environment
P280-Wear protective gloves / eye protection / face protection

(RESPONSE)

P301+P312- If swallowed, call a POISON CENTER or doctor if you feel unwell
P330-Rinse mouth

P302+P352-IF ON SKIN wash with plenty of soap and water

P305+P351+P338-IN IN EYES rinse cautiously with water for 20 minutes, remove contact lenses and continue rinsing

P337+P313-If eye irritation persists, get medical advice / attention

P362+P364-Take off contaminated clothing

Precautionary Statements, Storage:

P403+P233-Store in a well-ventilated place. Keep container tightly closed.

P501-Dispose of container in accordance with local regulations

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage of Weight:</u>	<u>CAS No.</u>
Mono carbamide dihydrogen sulfate	< 10	21351-39-3
Magnesium Sulfate	< 15	10034-99-8
Ferrous Sulfate	< 30	7782-63-0
Manganese Sulfate	< 10	10034-96-5

4. FIRST AID MEASURES

If in eyes:	Flush with clean running water for at least 15 minutes. Remove contact lenses. Call poison control and get medical attention.
If on skin:	Remove contaminated clothing. Wash thoroughly with soap and water. If irritation persists, or if a rash develops, get medical attention.
If swallowed:	If conscious, drink 1 or 2 glasses of water and get medical attention. Do not induce vomiting or give anything by mouth to an unconscious person.
If inhaled:	Remove to fresh air. If irritation persists, get medical attention and call poison control.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method):	Does not flash
FLAMMABLE LIMITS (LFL & UFL):	Not established
EXTINGUISHING MEDIA:	Considered non-combustible. Use foam, CO ₂ , dry chemical, or water
HAZARDOUS COMBUSTION PRODUCTS:	Combustion may yield oxides of carbon, nitrogen, and sulfur. Exposure to heat may liberate CO ₂ and ammonia.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Ventilate area. Stop leak, contain spill and absorb with soil or natural absorbents. Liquid is corrosive. Ensure pumping equipment is 316 stainless steel. Sweep up waste and place in container for disposal. Keep spills and rinsate out of municipal sewers and open bodies of water. Uncontaminated spilled material may be reused.

7. HANDLING AND STORAGE

HANDLING:	Avoid inhalation of mists, vapors/spray, and contact with eyes, skin and clothing. Wear personal protective equipment. Do not use in areas without adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Do not empty into drains. Handle and open container with care. Wash before eating, drinking, or smoking.
STORAGE:	Store in the original labeled container in a cool place away from direct sunlight. Keep separate from food and feed products and out of reach of children and animals. Avoid storage at temperatures of 110F or higher. Corrosive to steel, aluminum, brass. Use with 316 stainless steel or PVC fittings and store in a polypropylene acid approved storage tank with proper spill containment measures suitable to the volume being stored. Containment and tank requirements are specific to the fire code for the region (state, county, city) in which the product is being stored.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits:

US Workplace Exposure Level TLV's: No data available

US Workplace Exposure Level PEL's: No data available

Biological Limit Values: No listings

Personal Protective Equipment:

Respiratory: In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator guidelines found in 29 CFR 1919.134.

Eye / Face: Wear eye / face protection; chemical splash safety goggles / face shield

Skin / Body: Wear chemical resistant gloves and protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear liquid with no discernable smell

SOLUBILITY: Soluble

pH: 1.5

BULK DENSITY: 10.9 lbs. per gallon

SPECIFIC GRAVITY (Water = 1): 1.31

BOILING POINT: 212°F

VAPOR PRESSURE: Not established

EVAPORATION RATE: Not established

PERCENT VOLATILE (by volume): Not established

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

STABILITY: Stable for at least 1 year under normal conditions.

INCOMPATIBILITY: Avoid contact with chlorates, nitrates, hypochlorites, sulfides, or alkaline materials. Avoid storage, piping, or handling systems made of copper, zinc, or their alloys. Corrosive to 304 stainless steels. Slightly corrosive to 316 stainless steels. Incompatible with nylon and nylon beads.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion may yield oxides of carbon, nitrogen, and sulfur. Exposure to heat may liberate CO₂ and ammonia.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀(rat): not established

Acute Dermal LD₅₀(rat): not established

Eye Irritation (rabbit): corrosive

Skin Irritation (rabbit): may be corrosive to skin

Inhalation LC₅₀(rat): not established

Skin Sensitization (guinea pig): not established

Carcinogenic Potential: None listed in OSHA, NTP, IARC, or ACGIH

12. ECOLOGICAL INFORMATION

Ecotoxicology: 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. This product is not for use in aquatic settings.

13. DISPOSAL CONSIDERATIONS

Do not reuse containers. Rinse container thoroughly, adding rinsate to tank mix. Offer for recycling at an ACRC site or dispose of in a sanitary landfill. Avoid contaminating water by disposal of equipment wash waters or other product wastes.

14. TRANSPORT INFORMATION

DOT Shipping Description: UN1760, CORROSIVE LIQUIDS, N.O.S. (Dicarbamide dihydrogen sulfate), 8, III ERG GUIDE 154

NOTE: DOT CORROSIVE TO ALUMINUM AND MILD STEEL. NOT REGULATED BY DOT IF TRANSPORTED BY MOTOR VEHICLE OR RAILCAR IN PACKAGING THAT WILL NOT REACT DANGEROUSLY OR BE DEGRADED BY THIS MATERIAL, 49 CFR 173.154(D).

Freight Classification: Fertilizing Compounds, NOI, Liquid, NMFC 68140, sub-6, class 70)
STCC#: 2871431 Fertilizing Compounds (Manufactured Fertilizers), n.e.c., liquid or paste, or plant food, liquid or paste.

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:

NFPA		HMIS
3 Health	0 Least	3 Health
0 Flammability	1 Slight	0 Flammability
0 Instability	2 Moderate	0 Reactivity
	3 High	H PPE
	4 Severe	

SARA Hazard Notification/Reporting

SARA Title III Hazard Category: Immediate Y Fire N Sudden Release of Pressure N
Delayed N Reactive N

Reportable Quantity (RQ) under U.S. CERCLA: Not listed

SARA, Title III, Section 313: Not listed

RCRA Waste Code: Not listed

16. OTHER

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