



Safety Data Sheet

Report Date 04-Jun-15

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1. Identification

Product Name : ELE-MAX MANZINC FL 1-0-0
Synonyms : None
Product Use : Foliar Nutritional Liquid Flowable
Manufacturer/Supplier : Helena Chemical Company
Address : 225 Schilling Blvd. Collierville, TN 38017
General Information : 901-761-0050
Transportation Emergency Number : CHEMTREC:800-424-9300

2. Hazard Identification



Signal Word : Warning (no health pictogram)
Skin Irritation : Causes mild skin irritation
Eye Irritation : Causes eye irritation
Acute Toxicity Oral : LD50>2,000 mg/kg (rat)
Acute Toxicity Dermal : May be harmful in contact with skin

Hazard Categories : Aquatic Toxicity (Acute/Chronic)-1/2; Oral/Dermal/Inhalation Tox-5/5/5; Eye/Skin Irritation-2B/3

Hazard Statement : May be harmful if swallowed
May be harmful in contact with skin
Causes eye irritation
Causes mild skin irritation
May be harmful if inhaled
Very toxic to aquatic life
Toxic to aquatic life with long lasting effects

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Proprietary blend of plant nutrients derived from Urea, Manganese Carbonate and Zinc Oxide. Guaranteed Analysis: Total Nitrogen (N): 1.00 Manganese (Mn): 14.00% Zinc (Zn): 19.50%		100.00

4. First Aid Measures

Eye : Rinse eyes with plenty of running water. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Skin : Wash with soap and water. Get medical attention if irritation develops.

Inhalation : Avoid inhalation of vapor, spray or mist. If inhaled, remove to fresh air. Get medical attention if you feel unwell.

Ingestion : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Get medical attention if adverse health effects persist or are severe.

Indication of Immediate Medical Attention and Special Treatment Needed : Treat symptomatically. Contact poison control center if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. Observe exposed person for 48 hours.



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5. Fire Fighting Measures

- Extinguishing Media** : Use an extinguishing agent suitable for surrounding fire.
- Specific Hazards Arising from the Chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Special Fire Fight Proc** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Wear self-contained breathing apparatus and full protective clothing.

6. Accidental Release Measures

- Personal Precautions** : Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
- Protective Equipment** : Eyewash station, emergency shower, chemical-resistant gloves, splashproof goggles, impervious apron and footwear.
- Emergency Procedures** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
- Methods and Materials for Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Absorb with an inert dry material. Collect and place in appropriate waste disposal container.

7. Handling and Storage

- Precautions for Safe Handling** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.
- Conditions for Safe Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials, food and drink. Keep container tightly closed and sealed until ready for use.

8. Exposure Controls / Personal Protection

- TLV/PEL** : Not established.
- Appropriate Engineering Controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Personal Protective Equipment** : Eyewash station, emergency shower, chemical-resistant gloves, splashproof goggles, impervious apron and footwear.

9. Physical and Chemical Properties

- Odor/Appearance** : Pale yellow or brown liquid with undetermined odor
- Flash Point, °F** : Not flammable
- Boiling Point, °F** : Not determined
- Melting Point(Freezing point), °C** : <-5 Degrees C.
- Vapor Pressure, mm Hg @ 20 °C** : Not determined
- Vapor Density** : Not determined
- Solubility in Water** : Not determined
- Molecular Formula** : Not applicable, formulated mixture.
- Density, g/mL @ 25 °C** : 1.777



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Evaporation Rate(Butyl Acetate = 1) : Not determined
Octanol/Water Partition Coefficient : Not determined
pH : 9
Flammable Limits (approximate volume % in air) : Not determined
Auto-ignition Temperature : Not applicable
Decomposition temperature : Not determined

10. Stability and Reactivity

Reactivity : No specific test data related to reactivity.
Chemical Stability : Stable
Hazardous Decomposition Products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous Polymerization : Will not occur
Conditions to Avoid : Avoid contamination by any source including metals, dust and organic materials.
Incompatible Materials : Urea reacts with calcium hypochlorite or sodium hypochlorite to form the explosive nitrogen trichloride.

11. Toxicological Information

Acute Toxicity (Oral LD50) : >2,000 mg/kg (rat). May be harmful if swallowed.
Acute Toxicity (Dermal LD50) : No LD50 available. May be harmful in contact with skin.
Acute Toxicity Inhalation LC50 : >5.34 mg/L (rat). May be harmful if inhaled.
Likely Routes of Exposure : Skin, eyes, inhalation.
Skin Irritation : Causes mild skin irritation.
Eye Irritation : Causes eye irritation.
Skin Sensitization : No known significant effects or critical hazards.
Carcinogenic : No known significant effects or critical hazards.
Chronic Effects : No known significant effects or critical hazards.
Other Hazards : No known significant effects or critical hazards.

12. Ecological Information

Ecotoxicity : Very toxic to aquatic life with long lasting effects.
Persistence and Degradability : Readily biodegradable in plants and soils.
Bioaccumulative Potential : The product does not show any bioaccumulation phenomena.
Mobility in Soil : Not available.
Other Adverse Effects : No known significant effects or critical hazards.

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



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UN Proper Shipping Name : Not regulated by DOT in non-bulk packages. Regulated by IATA, IMDG and DOT in bulk packages as Environmentally Hazardous Substance, Liquid, n.o.s. (Zinc Oxide), Marine Pollutant

Transport Hazard Class : Class 9

UN Identification Number : UN3082

Packaging Group : PG III

Environmental Hazards : Marine Pollutant - bulk packages in the US only

Transport in Bulk : Marine Pollutant

Special Precautions for Transportation : Marine Pollutant

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

15. Regulatory Information

National Fire Protection Association Rating :

Health: 1 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: N
Delayed (Chronic) Health: N
Sudden Release of Pressure: N
Fire: N
Reactive: N

16. Other Information

Data of Preparation/Revision : 04-June-2015