Safety Data Sheet

1. Identification

Product Name : ELE-MAX TURF NECTAR 12-0-0
Synonyms : None
Product Use : Inorganic liquid fertilizer
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 : Danger
Skin Irritation : Causes severe skin burns
Eye Irritation : Causes serious eye damage
Acute Toxicity Oral : Ingestion causes gastrointestinal upset.
Acute Toxicity Dermal : No acute effects currently known.

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

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

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Blend of plant nutrients derived from urea nitrogen, sulfate of potash, ferrous sulfate heptahydrate, manganese sulfate, zinc sulfate, chelating agent and citric acid. GUARANTEED ANALYSIS: Total Nitrogen (N): 12.00% Sulfur (S): 3.60% Iron (Fe): 5.00% Manganese (Mn): 0.50% Zinc (Zn): 0.50%	Proprietary	100.00

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.

5. Fire Fighting Measures

Extinguishing Media	: Non-combustible liquid. Use extinguising media for underlying cause of fire.
Specific Hazards Arising from the Chemical	: Decomposes on heating to nitrogen oxides.
Special Fire Fight Proc	: Use positive pressure self-contained breathing apparatus with 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 not normally needed. Eyewash and emergency shower should be available in work area.
Emergency Procedures	: Do not contaminate water supplies with spilled product.
Methods and Materials for Containment and Cleanup	: Contain product, reuse material if uncontaminated. If contaminated, absorb material with an absorbent such as clay or sand 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. Do not allow water to be introduced into the contents of the container.
Conditions for Safe Storage	: Store in original container only. Do not store near heat or open flame. Do not store with oxidizing agents or ammonium nitrate.

8. Exposure Controls / Personal Protection

TLV/PEL	: Ferrous sulfate heptahydrate (TLV) - 1 mg/m3
Appropriate Engineering Controls	: Local exhaust normally sufficient.
Personal Protective Equipment	: Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Respiratory protection not normally needed. Eyewash and emergency shower should be available in work area.

9. Physical and Chemical Properties

Odor/Appearance	: Clear, light green to yellow liquid; sulfur odor.
Flash Point, ^{0}F	: Non-combustible
Boiling Point, ^{0}F	: >212 Degrees F.
Melting Point(Freezing point), ^{0}C	: <32 Degrees F.
Vapor Pressure, mm Hg @ 20 ^{0}C	: Not determined
Vapor Density	: Not determined
Solubility in Water	: Soluble
Molecular Formula	: Not applicable, formulated mixture
Density, g/mL @ 25 ^{0}C	: 1.275-1.295
Evaporation Rate(Butyl Acetate = 1)	: No information found

Octanol/Water Partition Coefficient	: No information found
pH	: <3.0
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 Products	: May decompose to cyanuric acid, ammonia, hydrogen cyanide and nitrogen oxides under fire conditions.
Hazardous Polymerization	: Will not occur
Conditions to Avoid	: Avoid extremes of heat.
Incompatible Materials	: Hypochlorite bleach, strong acids and alkalis.

11. Toxicological Information

Acute Toxicity (Oral LD50)	: No LD50 available. Ingestion results in vomiting and abdominal cramps.
Acute Toxicity (Dermal LD50)	: No LD50 available. No acute effects currently known.
Acute Toxicity Inhalation LC50	: No LC50 available. May cause minor irritation to the mucous membranes if mist is inhaled.
Likely Routes of Exposure	: Skin, eyes, inhalation
Skin Irritation	: Causes severe skin burns.
Eye Irritation	: Causes serious eye damage.
Skin Sensitization	: Not listed as a skin sensitizer.
Carcinogenic	: None currently known.
Chronic Effects	: None currently known.
Other Hazards	: None currently known.

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 requlated by DOT in single packages >/= 1,560 gallons.
Transport Hazard Class	: None
UN Identification Number	: None
Packaging Group	: None

Environmental Hazards : Ferrous Sulfate Heptahydrate reportable quantity (RQ) = 1,000 pounds; Zinc Sulfate reportable quantity (RQ) = 1,000 pounds

Transport in Bulk : If shipped by ground (DOT) in single package >/= 1,560 gallons, ship as: RQ, UN3082, Environmentally Hazardous Substance, Liquid, n.o.s., (Ferrous Sulfate Heptahydrate, Zinc Sulfate)

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 : 21-May-2015