



Safety Data Sheet

Issue Date: no data available

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Version: 1

1. IDENTIFICATION

Product Identifier:

Product Name: Step® Hi Mag Trace Element Package
Product Number(s): G8435
Formula No.: S4678

Recommended Use of the Chemical and Restrictions on Use:

Description: General Fertilizer Product

Company:

Everris NA Inc.
P.O. Box 3310
Dublin, OH 43016

24-HOUR EMERGENCY TELEPHONE NUMBERS:

CHEMTREC (U.S.): 1-800-424-9300
CHEMTREC (International): 1-703-527-3887
Non-Emergency Calls: 1-800-492-8255

2. HAZARD(S) IDENTIFICATION

OSHA Regulatory Status:

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious Eye Damage or Eye Irritation	Category 2A
Specific Target Organ Toxicity (Repeated Exposure)	Category 2

Label Elements:

Emergency Overview

Warning

Hazard Statements:

Causes serious eye irritation
May cause damage to organs through prolonged or repeated exposure



Appearance: granulate

Physical State: Solid

Odor:

Fertilizer

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear eye/face protection
Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

Get medical advice/attention if you feel unwell

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC):

Other Information:

- Causes mild skin irritation
- Toxic to aquatic life with long lasting effects
- Toxic to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS-No	Weight %	Trade Secret
Iron Oxide; Fe ₂ O ₃	1309-37-1	10-15	*
Manganese sulphate; MnSO ₄ ·1H ₂ O	7785-87-7	3-7	*
Iron sulphate; FeSO ₄ ·1H ₂ O	7720-78-7	1-5	*
Zinc Sulfate anh; ZnSO ₄	7733-02-0	1-5	*
Zinc oxide; ZnO	1314-13-2	1-3	*
Copper Oxide; CuO	1317-38-0	<1	*
Copper sulphate anh; CuSO ₄	7758-98-7	<1	*

* The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST-AID MEASURES

First Aid Measures:

- Eye Contact:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- Skin Contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 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 by 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. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Indication of Any Immediate Medical Attention and Special Treatment Needed:

Notes to Physician: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water spray, carbon dioxide, dry chemical, chemical foam.

Specific hazards: Dust clouds may be explosive.

Hazardous Combustion Products: Toxic fumes may be produced.

Explosion Data:

Sensitivity to Mechanical Impact:

no data available.

Sensitivity to Static Discharge:

no data available.

Special Protective Equipment for Firefighters: In the event of fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Personal Precautions: Wear personal protective equipment. Avoid dust formation. Avoid contact with skin, eyes and clothing. Do not inhale dust/mist.

Environmental Precautions: Prevent product from entering drains.

Methods and Material for Containment and Cleanup:

Methods for containment: Vacuum or sweep up material and place in a disposal container.

Methods for Cleanup: Take up mechanically and collect in suitable container for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling:

Handling: Avoid container breakage. Avoid inhalation or contact with skin, eyes, or clothing. Avoid inhalation of dust. Keep out of reach of children and pets. Keep out of lakes, streams or ponds.

Conditions for Safe Storage, Including any Incompatibilities:

Storage: Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters:

Exposure Guidelines:

Ingredients	CAS-No	ACGIH:	OSHA:	IDLH:
Iron Oxide; Fe ₂ O ₃	1309-37-1	5 mg/m ³ TWA	10 mg/m ³ TWA 15 mg/m ³ TWA Rouge 5 mg/m ³ TWA Rouge	2500 mg/m ³ IDLH Fe
Manganese sulphate; MnSO ₄ ·1H ₂ O	7785-87-7	0.1 mg/m ³ TWA	Not Listed	500 mg/m ³ IDLH Mn
Iron sulphate; FeSO ₄ ·1H ₂ O	7720-78-7	1 mg/m ³ TWA	Not Listed	Not Listed
Zinc Sulfate anh; ZnSO ₄	7733-02-0	Not Listed	Not Listed	Not Listed
Zinc oxide; ZnO	1314-13-2	2 mg/m ³ TWA	5 mg/m ³ TWA 15 mg/m ³ TWA	500 mg/m ³ IDLH
Copper Oxide; CuO	1317-38-0	1 mg/m ³ TWA	Not Listed	100 mg/m ³ IDLH Cu
Copper sulphate anh; CuSO ₄	7758-98-7	1 mg/m ³ TWA	Not Listed	100 mg/m ³ IDLH Cu

Appropriate Engineering Controls:

Engineering Measures to Reduce Exposure: Use adequate ventilation to keep the airborne concentrations of this material below the recommended exposure standard.

Individual Protection Measures, Such as Personal Protective Equipment:

Eye/Face Protection: Safety glasses with side shields or goggles.

Skin and Body Protection: Wear suitable protective clothing. Impervious clothing. impervious gloves.

Respiratory Protection: When airborne exposure guidelines and/or comfort levels may be exceeded, use an approved air-purifying respirator.

General hygiene considerations: Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties:

Physical State:	Solid	
Color:	grey	Appearance: granulate
Odor:	Fertilizer	Odor No information available
		Threshold:

<u>Property</u>	<u>Values</u>	<u>Remarks: • Method</u>
pH:	No information available	
Melting Point/Freezing Point:	No information available	
Boiling Point/Range:	No information available	
Flash Point:	No information available	
Evaporation Rate:	No information available	
Flammability (solid, gas):	No information available	
Flammability Limits in Air:		
Upper Flammability Limit:	No information available	
Lower Flammability Limit:	No information available	
Vapor Pressure:	No information available	
Vapor Density:	No information available	
Specific Gravity:	No information available	
Solubility:	Soluble	
Solubility in other Solvents:	No information available	
Partition Coefficient:	No information available	
Autoignition Temperature:	No information available	
Decomposition Temperature:	No information available	
Kinematic Viscosity:	No information available	
Dynamic Viscosity:	No information available	
Explosive Properties:	No information available	
Oxidizing Properties:	Not considered an oxidizer	

Other Information:

Softening Point:	No information available
Molecular Weight:	No information available
VOC Content (%):	No information available
Density:	No information available
Bulk density:	No information available

10. STABILITY AND REACTIVITY

Reactivity: Stable under normal conditions

Chemically Stable: yes.

Conditions to Avoid: Dust may form explosive mixture in air.

Materials to avoid Chlorinated compounds. Strong oxidizing agents.

Hazardous Decomposition Products: Combustion produces caustic fumes.

Possibility of Hazardous Reactions: Poses little or no immediate hazard.

11. TOXICOLOGICAL INFORMATION

Information on the Likely Routes of Exposure (inhalation, ingestion, skin and eye contact):

Eye effects: Causes serious eye irritation

Skin effects: May cause skin irritation and/or dermatitis

Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Inhalation: May cause irritation of respiratory tract.

Component Information:

Ingredients	LD50 Oral	LD50 Dermal	LC50 Inhalation
Iron Oxide; Fe2O3 1309-37-1	> 10000 mg/kg (Rat)	-	-
Manganese sulphate; MnSO4+1H2O 7785-87-7	= 782 mg/kg (Rat)	-	-
Iron sulphate; FeSO4+1H2O 7720-78-7	= 500 mg/kg (Rat)	-	-
Zinc Sulfate anh; ZnSO4 7733-02-0	= 500 mg/kg (Rat)	-	-
Zinc oxide; ZnO 1314-13-2	> 5000 mg/kg (Rat)	-	-
Copper sulphate anh; CuSO4 7758-98-7	= 300 mg/kg (Rat)	= 1000 mg/kg (Rabbit)	-

Information on Toxicological Effects:

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-Term Exposure:

Sensitization: May cause sensitization of susceptible persons

Mutagenic effects No information available.

Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen.

Ingredients	ACGIH - Carcinogens	IARC:	NTP Report on Carcinogens List -	OSHA
Iron Oxide; Fe2O3 1309-37-1	A4	3	-	-

Reproductive Toxicity No information available.

STOT - Single Exposure No information available.

STOT - Repeated Exposure May cause damage to organs through prolonged or repeated exposure.

Aspiration Hazard No information available.

Numerical Measures of Toxicity - Product Information:

The following values are calculated based on chapter 3.1 of the GHS document: .

ATEmix (oral): 5035 mg/kg
LD50/oral: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Unknown Aquatic Toxicity: 29.9% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Ecotoxicity effects: Toxic to aquatic life with long lasting effects.

Persistence and degradability: Degrades slowly.

Mobility: Water contaminating.

Additional ecological information: Do not contaminate water by cleaning of equipment or disposal of wastes.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods:

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

Contaminated Packaging: Do not reuse container.

14. TRANSPORT INFORMATION

The description shown may not apply to all situations. Consult 49 CFR, or appropriate dangerous goods regulations for additional description requirements (e.g. technical name) and mode-specific or quantity-specific shipping requirements.

DOT (Land) Not DOT regulated
IATA (Air) Not regulated
IMO/IMDG (Vessel) Not regulated

15. REGULATORY INFORMATION

Federal Regulations:

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

SARA 311/312 Hazard Categories:

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No

Reactive Hazard

No

CWA (Clean Water Act):

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Ingredients	CWA - Reportable Quantities	CWA - Toxic Pollutants	Clean Water Act - Priority Pollutants	Clean Water Act - Hazardous Substances
Iron sulphate; FeSO ₄ ·1H ₂ O 7720-78-7	-	-	-	Present
Zinc Sulfate anh; ZnSO ₄ 7733-02-0	-	-	-	Present
Copper sulphate anh; CuSO ₄ 7758-98-7	-	-	-	Present

CERCLA:

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Ingredients	CERCLA/SARA 313	CERCLA/SARA RQ	Reportable Quantity (RQ)
Iron sulphate; FeSO ₄ ·1H ₂ O 7720-78-7	1000 lb final RQ 454 kg final RQ	-	--
Zinc Sulfate anh; ZnSO ₄ 7733-02-0	1000 lb final RQ 454 kg final RQ	-	--
Copper sulphate anh; CuSO ₄ 7758-98-7	10 lb final RQ 4.54 kg final RQ	-	--

State Regulations (RTK):**California Proposition 65:****U.S. State Right-to-Know Regulations:****U.S. EPA Label information:****EPA Pesticide Registration Number:**

not applicable

16. OTHER INFORMATION

NFPA: Health: 2 Flammability: 0 Reactivity: 0

HMIS: Health: 2 Flammability: 0 Reactivity: 0

Revision Date: 11-Sep-2014

Revision Note:

Reason for revision: None

Disclaimer

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End of Safety Data Sheet