

MATERIAL SAFETY DATA SHEET

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EMERGENCY (24-HOUR) INFORMATION CALL CHEMTREC (800)424-9300
EPA NATIONAL RESPONSE CENTER (800)424-8802

SECTION I: IDENTIFICATION OF PRODUCT

Product Name: Ligtrace Green Flush
Product Class: Fertilizing compound, liquid
Chemical Name and Synonyms: Iron, Manganese, Zinc lignosulfonate, aqueous solution

SECTION II: HAZARDOUS INGREDIENTS

CHEMICAL	CAS NO.
Iron Sulfate	7720-78-7
Manganese Sulfate	10034-96-5
Zinc Sulfate	7733-02-0

SECTION III: EMERGENCY/HAZARDS OVERVIEW

Black liquid with slight lignin odor. Mild irritant if it comes in contact with eyes or skin. If ingested, may cause stomach cramps and/or nausea. High temperatures may result in sulfur trioxide fumes. Not a D.O.T. hazardous material.

HEALTH: 1 **REACTIVITY:** 0 **FLAMMABILITY:** 0 **ENVIRONMENT:** 0
(0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme)

SECTION IV: PHYSICAL AND CHEMICAL DATA

Boiling Point: 100°C (212°F)	Freezing Point: Not Available
% Volatile by Weight: Not Available	pH: Not Available
Vapor Density: Not Available	Vapor Pressure (mm Hg): 760 mm Hg
Solubility In Water: Completely Miscible	Evaporation Rate: Same as Water
Density: 11.2 lbs/gal	Viscosity: Not Available
Appearance: Black liquid	
Odor: Slight lignin odor	
Octanol/Water Partition Coefficient: Not Available	
Saturated Vapor Concentration: Not Available	

SECTION V: FIRE AND EXPLOSION DATA

Flash Point: > 200°F
LEL Flammable Limits: Not Pertinent
Autoignition Temperature: Not Pertinent
Properties that Initiate/Contribute to Intensity of Fire: None
Potential for Release of Flammable Vapors: None
Potential for Dust Explosion: None
Reactions that Release Flammable Gases or Vapors: Not Known
Unusual Fire & Explosion Hazards: None
Extinguishing Media: Not Pertinent
Known Hazardous Products of Combustion: Thermal degradation at >575°C (1067°F) may produce sulfur trioxide.
Special Firefighting Procedures: Wear positive pressure, self-contained breathing apparatus and goggles. Contain any liquid runoff.

SECTION VI: REACTIVITY DATA

Stability: Stable
Hazardous Polymerization: Will not occur
Conditions To Avoid: None Known
Incompatibility: Contact with brass or strong oxidizing agents
Hazardous Decomposition Products: Thermal degradation at high temperatures above 575°C (1067°F) may produce sulfur trioxide

SECTION VII: HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE / EMERGENCY AND FIRST AID PROCEDURES

Eyes: Wear chemical dust/splash goggles or full-face shield to prevent eye contact. As a general rule, do not wear contact lenses when handling. If contact occurs, flush eyes immediately with water for at least 15 minutes. Call a physician if irritation persists.

Skin: Wear impervious gloves and clothes. If contact occurs, wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. Call a physician if skin becomes irritated.

Ingestion: If conscious and alert, drink water or milk to dilute, then induce vomiting. Call a physician or Poison Control Center Immediately.

Respiratory Protection: Not normally needed. If use generates an aerosol mist or respiratory irritation, use NIOSH- approved dust/mist respirator (3M #8710).

Inhalation: If vapors or mist causes irritation or distress, remove to fresh air and call a physician.

Ventilation: Recommended but no TLV established.

ACUTE EFFECTS

Eyes: Mild irritant. May cause redness.

Skin: Mild irritant, especially from prolonged exposure. May cause redness.

Ingestion: May cause stomach cramps and/or nausea.

Inhalation: None expected but inhalation of aerosol mist may cause mild irritation of nasal mucous membranes.

SUBCHRONIC EFFECTS

None Known

CHRONIC EFFECTS

None Known

SECTION VIII: SPILL, LEAK, AND DISPOSAL PROCEDURES

Contain all spills and leaks to prevent discharge into the environment. If spilled, use appropriate absorbent material to absorb the spilled material and flush spilled area with water. Consult local waste regulators for proper disposal.

SECTION IX: HANDLING AND STORAGE

Storage: Store in plastic or stainless steel container in a cool, well-ventilated, dry place at temperatures above 40°F. Do not store in contact with brass. Do not store near food or feeds. Do not stack pallets more than two (2) high.

Transfer Equipment: Transfer product using chemical-resistant plastic or stainless steel tanks, pumps, valves, etc.

Work/Hygienic Practices: Keep out of reach of children. Avoid contact with eyes, skin and clothing. Avoid inhalation of spray mists. Wash thoroughly with water after handling.

SECTION X: D.O.T, REGULATORY, AND GENERAL INFORMATION

D.O.T. Shipping Description: Not D.O.T. Regulated

Other Shipping Information: Fertilizing Compounds (Manufactured), Liquid. NMFC Item 68140 Sub 6, LTL Class 70

CERCLA: None

SARA TITLE III, Section 313 Toxic Chemicals: Iron compounds, Manganese compounds, and Zinc compounds

PROPOSITION 65 (CA): Warning: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

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