

MATERIAL SAFETY DATA SHEET

DR. IRON[®] LIQUID 15-0-0

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Issue Date: 2/10

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Chemical Product

DR. IRON[®] LIQUID 15-0-0

Common Name: Liquid foliar fertilizer.

Chemical Description: Liquid fertilizer mixture.

TSCA/CAS No.: This product is a mixture — there is no primary CAS number.

Manufactured For

Lawn and Garden Products, Inc.

P. O. Box 35000

Fresno, CA 93745-5000

Emergency Phone Numbers

Emergency Telephone: DAYS: (559) 499-2100 EVES.: (559) 994-9144

CHEMTREC (24-Hour Emergency Number): (800) 424-9300

EPA National Response Center: (800) 424-8802

SECTION 2. HAZARDOUS INGREDIENTS

CHEMICAL	CAS NO.	%	TLV OR PEL	RQ (lbs)
Sulfuric acid	7664-93-9	2.3	1 mg/m ³	1,000
Ferrous sulfate, heptahydrate	7782-63-0	30.0	1 mg/m ³ (as Fe) Iron salts, soluble ACGIH TWA (1979)	1,000

SECTION 3. EMERGENCY/HAZARDS OVERVIEW

Clear, green to brown liquid with rust-like odor. Moderate eye irritant. Avoid mixing with strong acids, bases or oxidizers. Not D.O.T. regulated under 300 gallons.

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

SECTION 4. FIRST AID

- Eyes: Flush immediately with water for at least 15 minutes. Do not rub eyes. Get immediate medical attention.
- Skin: Wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. See a physician if skin becomes irritated.
- Ingestion: If conscious and alert, drink water or milk to dilute. Do not induce vomiting unless so advised by a physician or Poison Control Center. Call a physician or Poison Control Center immediately.
- Inhalation: Move to fresh air. If breathing becomes difficult, call a physician.

SECTION 5. FIRE AND EXPLOSION HAZARDS

Flash Point:	>200°F.
Test Method:	ASTM-D93
LEL Flammable Limits:	Not pertinent.
UEL Flammable Limits:	Not pertinent.
Autoignition Temperature:	Not pertinent.
Flammability Classification:	Noncombustible.
Known Hazardous Products of Combustion:	None.
Properties that Initiate/Contribute to Intensity of Fire:	None.
Potential For Dust Explosion:	None.
Reactions that Release Flammable Gases or Vapors:	Not known.
Potential For Release of Flammable Vapors:	None.
Unusual Fire & Explosion Hazards:	None.
Extinguishing Media:	Does not burn.
Special Firefighting Procedures:	Wear positive pressure, self-contained breathing apparatus and goggles. Avoid smoke inhalation. Contain any liquid runoff.

SECTION 6. SPILLS AND LEAKS

Containment:	Prevent product spillage from entering drinking water supplies or streams.
Clean Up:	Collect liquid or absorb onto absorbent material and package for disposal.
Evacuation:	Not necessary.

SECTION 7. STORAGE AND HANDLING

Storage:	Store in plastic or stainless steel container in a cool, well-ventilated, dry place at temperatures above 40oF. 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 8. PERSONAL PROTECTIVE EQUIPMENT

Eyes:	Chemical dust/splash goggles or full-face shield to prevent eye contact. As a general rule, do not wear contact lenses when handling.
Skin:	Impervious gloves and clothes.
Respiratory:	Not normally needed. If use generates an aerosol mist or respiratory irritation, use NIOSH-approved dust/mist respirator (such as 3M #8710).
Ventilation:	Recommended but no TLV established.

SECTION 9. PHYSICAL AND CHEMICAL DATA

Appearance:	Clear green liquid.
Odor:	Rust-like.
pH:	1.3 – 2.1
Vapor Pressure:	0.25 (psi)
Vapor Density (Air=1):	>1.0
Boiling Point:	100°C (212°F)
Freezing Point:	Not available.
Water Solubility:	Miscible.
Density:	11.1 lbs./gal.
Evaporation Rate:	Not available.
Viscosity:	Not available.
% Volatile:	Not available.
Octanol/Water Partition Coefficient:	Not available.
Saturated Vapor Concentration:	Not available.

SECTION 10. STABILITY AND REACTIVITY

Stability:	Stable.
Conditions To Avoid:	Avoid mixing with strong acids, bases or oxidizers.
Incompatibility:	Not available.
Hazardous Decomposition Products:	None.
Hazardous Polymerization:	Will not occur.

SECTION 11. POTENTIAL HEALTH EFFECTS

<u>Acute Effects:</u>	
Eyes:	Moderate irritant. May cause redness and burning.
Skin:	Irritant, especially from prolonged exposure. Causes redness, drying and cracking.
Ingestion:	May cause stomach cramps and/or nausea.
Inhalation:	None expected but aerosol mist may cause mild irritation of nasal mucous membranes.
<u>Subchronic Effects:</u>	None known.
<u>Chronic Effects:</u>	None known.

SECTION 12. ECOLOGICAL INFORMATION

Algal/Lemna Growth Inhibition:	Not known.
Toxicity to Fish and Invertebrates:	Not known.
Toxicity to Plants:	Not known.
Toxicity in Birds:	Not known.

SECTION 13.	DISPOSAL
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Do not contaminate lakes, streams, ponds, estuaries, oceans or other waters by discharge of waste effluents or equipment washwaters. Dispose of waste effluents according to state and local regulations.

Also, chemical additions or other alterations of this product may invalidate any disposal information in this MSDS. Therefore, consult local waste regulators for proper disposal. Do not discharge.

SECTION 14.	TRANSPORTATION
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D.O.T. Shipping Description:	Not D.O.T. Regulated. (when shipped in containers less than 300 gallons)
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Other Shipping Description:	Fertilizing Compounds (Manufactured), Liquid. NMFC Item 68140 Sub 6, LTL Class 70
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SECTION 15.	REGULATORY INFORMATION
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Ingredients Listed on TSCA Inventory	Sulfuric Acid– Yes Ferrous Sulfate CAS #7782-63-0 is not on the TSCA Inventory. It is a hydrate and exempt from TSCA Inventory requirements. CAS #7720-78-7 (Ferrous Sulfate Anhydrous) is on the Inventory.
CERCLA Section 103 Hazardous Substances	Ferrous Sulfate – Yes – RQ: 1,000 lb. Sulfuric Acid – Yes – RQ: 1,000 lb.
EPCRA Section 302 Extremely Hazardous Substance	Sulfuric Acid – Yes
EPCRA Section 311/312 Hazard Categories	Immediate (Acute) Health Hazard – Irritant
EPCRA Section 313 Toxic Release Inventory (Supplier Notification)	Sulfuric Acid CAS #7664-93-9 Percent by Weight: <3
Proposition 65 (CA)	Warning: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

SECTION 16.	OTHER
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