



MATERIAL SAFETY DATA SHEET #1047

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SUPERSEDES: 3/30/00

I. PRODUCT IDENTIFICATION

Product: LESCO Iron Plus/Chelated Iron Plus/Chelated Iron Plus with Zinc
Chemical Family: Iron Manganese micronutrient fertilizer
Chemical Name/Synonyms: Liquid micronutrient fertilizer

II. PRODUCT INFORMATION: INGREDIENTS

Chemical Name	TLV/TWA	%(by wt.)	CAS#
Ferrous sulfate Heptahydrate	1.0 mg/M ³ ACGIH TWA	31%	7782-63-0
Urea	10 mg/M ³ (dust) 5 mg/M ³ (resp)	26%	57-13-6
Manganese sulfate	15 mg/M ³ (dust)	3-6%	7785-87-7
Zinc sulfate	15 mg/M ³ (dust)	0-3%	7733-02-2
Inert ingredients (trade secret)	5 mg/M ³ (resp)	37%	N/A
Other components of formulation withheld under provisions of CFR 29 subpart 1910)			

III. PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point:	245-248° F	Specific Gravity (water=1):	1.38 - 1.39
Melting Point:	NA	Bulk Density (lbs./cu. ft.):	N/A
Vapor Pressure (mm Hg):	ND	Evaporation Rate:	ND
Vapor Density (air = 1):	ND	Percent Volatile:	50%
Solubility in Water:	100%	Appearance and Odor:	Light green to amber green liquid, no odor.
pH:	2.0-3.0		

IV. FIRE AND EXPLOSION HAZARD DATA

Flash Point (method Used):	NA (Non-combustible)	Auto Ignition Temperature:	NA
Lower Explosion Limits:	NA	Upper Explosion Limits:	NA
NFPA/HMIS RATING:	HEALTH 1	REACTIVITY 0	
	FIRE 0		

Extinguishing Media: This material will not support combustion.

Special Fire-Fighting Procedures: Use media for surrounding fire. Firefighters should wear approved self-contained breathing apparatus and protective clothing. Prevent runoff from entering drains, sewers or water sources.

Unusual Fire and Explosion Hazards: None known. Not an explosion hazard.

V. HEALTH HAZARDS

Primary Route(s) of Entry: Skin, eyes, inhalation, ingestion.

Signs & Symptoms of Exposure

Acute: Can cause moderate to severe eye irritation and mild to moderate skin irritation. Inhalation of spray may cause respiratory tract and mucous membrane irritation. Ingestion of iron sulfate symptoms include heartburn, nausea, gastric discomfort, constipation or diarrhea. Symptoms of severe poisoning may occur between 30 minutes to several hours. Severe hemorrhagic gastritis with abdominal pain, retching, violent diarrhea and vomiting may occur. Circulatory system may be affected with symptoms of shock, rapid, weak or no pulse, severe hypotension and pulmonary changes with dyspnea, and emphysema may occur. The average lethal dose of pure concentrated iron sulfate is 200-250 mg/kg body weight.

Chronic: Repeated exposure may cause dermatitis or conjunctivitis of eye. Reproductive effects have been reported in animals with administration of concentrated iron sulfate.

Emergency First-Aid Procedures

Eyes: Flush with potable water as needed for 5-15 minutes. If irritation persists, get medical attention.

Skin: Remove contaminated clothing. Shower and shampoo with clean water and soap to remove all traces of fertilizer from skin and hair.

Inhalation: If inhaled, remove to fresh air at once and call for emergency medical assistance immediately if irritation persists.

Ingestion: Consult medical assistance if swallowed.

Notes to Physician: In patients not in shock or coma, induce emesis with syrup of ipecac if vomiting has not occurred. Flow with gastric lavage using deferoxamine, 2 grams in 1 liter of water which contains sodium bicarbonate 20 gm/L. Leave 10 grams of deferoxamine in 50 ml of 5% sodium bicarbonate in the stomach. Maintain airway, blood pressure and respiration. Treat symptomatically and supportively. (Dreisbach, Handbook of Poisoning, 11th edition.)

The decision whether the severity of poisoning requires administering of any antidotes and actual dose required should be made by qualified medical personnel.

Toxicity Information:

Eye Irritation: Contact may cause moderate to severe eye irritation.

Skin Irritation: Contact may cause mild to moderate skin irritation.

Positive Teratogen or Mutagen Carcinogen(NTP): No Potential Carcinogen (IARC or OSHA): No

VI. REACTIVITY

Stability: Stable Unstable

Conditions to Avoid: Storage near strong alkaline materials.

Incompatibility: Strong base materials.

Hazardous Decomposition Products: Toxic gases emitted under combustion include oxides of carbon, sulfur and nitrogen, ammonia, biuret and cyanuric acid.

Hazardous Polymerization: Will not occur Will occur

VII. SPILL, LEAK, AND DISPOSAL PROCEDURES

If material is spilled: A plant food. Sweep, vacuum or shovel material into a container for reuse or disposal. Do not allow product to contaminate drains, sewers, streams, ditches or bodies of water. Prevent large quantities from contacting vegetation. Keep animals away from large spills.

Waste Disposal Method: Dispose according to Federal EPA procedures as outlined in the Resource Conservation Recovery act (RCRA) and follow state and local guidelines. Triple rinse and puncture containers as required.

VIII. SPECIAL PROTECTION INFORMATION

Protective Equipment Suggested for Outdoor Application:

Impervious Gloves Dust Mask Respirator(use NIOSH/MSHA approved)

Impervious Boots Clean Clothing Eye Goggles / Safety Glasses

Protective Equipment Suggested for Confined Areas:

Sufficient Ventilation Respirator(use NIOSH/MSHA approved)

Dust Mask Splash Goggles/Safety Glasses

Eyewash Station Emergency Shower Impervious Apron

IX. STORAGE AND HANDLING

Precautions: Store in a cool, dry place if possible. Separate from other pesticides, fertilizers, seed, feed, foodstuffs, and away from drains, sewers, and water sources.

Other Precautions: Store in original, sealed containers. Keep containers closed when not in use. Do not spill on skin or get in eyes. Do not allow storage temperatures to exceed 120° F.

X. FEDERAL REGULATORY INFORMATION:

SARA TITLE III; SEC. 311/312 HAZARD CATEGORIES

Y Immediate (acute Health)

N Delayed (Chronic) Health

N Fire

N Sudden Release of Pressure

N Reactivity

EPA Reg. No.: NA

D.O.T. SHIPPING INFORMATION

HM-181 Shipping Name: Not Regulated.

SEC 302: NA SEC 304: NA

SEC 313: NA

CERCLA: RQ 1000 lbs-Iron Sulfate

CAA: NA

NA = Not Applicable ND = Not Determined

Preparation and distribution of this Material Safety Data Sheet done by LESCO, Inc., pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200).

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