

SAFETY DATA SHEET



In the event of a medical or chemical emergency contact ChemTel, Inc.
North American 1-800-255-3924 or worldwide Intl. + 01-813-248-0585

Voluntary Purchasing Groups, Inc.

230 FM 87

Bonham, Texas 75418

Effective Date: August 10, 2015

Ferti-lome® Chelated Liquid Iron

Safety Data Sheet (SDS)

SECTION 1: IDENTIFICATION

Trade Name: Ferti-Lome Chelated Liquid Iron

3.250% Iron

.160% Zinc

.050% Copper

.150% Manganese

Chemical Name: Derived from Ferrous Sulfate Heptahydrate, Zinc Sulfate Monohydrate, Copper Sulfate Pentahydrate, and Manganese Sulfate Monohydrate, Contains 16.64% Ferrous Sulfate by weight. Other ingredients are proprietary and/or non-hazardous.

SECTION 2: HAZARDS IDENTIFICATION

Fire and Protection

Unusual fire and explosion hazards:

Contact with common metal produces hydrogen, which may form flammable or explosive mixtures.

Health

Inhalation: Mist, if formed, will irritate mucus membrane and respiratory tract. May cause lacrimation, coughing, sneezing, salivation, and labored breathing. Severe exposures may cause chemical pneumonitis.

Ingestion: Corrosion of mouth, gullet and digestive tract. Nausea, Vomiting, possible circulatory shock and loss of consciousness.

Skin: Prolonged contact of acid material with skin can cause severe burns. Mist (if formed) can irritate.

Eyes: Liquid contact will cause severe burns, which may result in blindness. Mist (if formed) can irritate.

Permissible

Concentration:

Air: OSHA

1Mg/M3 Pel

ACGIH

1Mg/M3 TWA

3Mg/M3 STEL

Unusual Chronic

Toxicity:

None Established

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ferrous Sulfate Heptahydrate	C.A.S. No. 7782-63-0
Zinc Sulfate Monohydrate	C.A.S. No. 7446-19-7
Copper Sulfate Pentahydrate	C.A.S. No. 7758-99-8
Manganese Sulfate Monohydrate	C.A.S. No. 7785-87-7

SECTION 4: FIRST AID MEASURES

- Eyes:** Immediately flush with water for a minimum of 15 minutes. If symptoms persist, get prompt medical attention.
- Skin:** Immediately flush with water for a minimum of 15 minutes. Remove contaminated clothing. If symptoms persist, get prompt medical attention. Use no chemical antidotes.
- Inhalation:** Remove to fresh air. Perform artificial respiration if necessary. Get prompt medical attention.
- Ingestion:** If conscious, immediately give large quantities of water. DO NOT induce vomiting. Follow with milk of Magnesia (1 oz.). Side effects on iron salt ingestion may include heartburn, nausea, gastric discomfort, constipation or diarrhea. Severe poisoning or ingestion may result in hemorrhagic gastritis with abdominal pain, retching, violent diarrhea and vomiting. Circulatory system may be affected with symptoms of shock, rapid, weak, or no pulse, severe hypotension and pulmonary changes with dyspnea, and emphysema. Never induce vomiting or give diluents to someone who is unconscious, having convulsions, or who cannot swallow.

SECTION 5: FIRE-FIGHTING MEASURES

Fire Extinguishing Agents Recommended:

Use water Spray. Product will not burn or contribute to intensity of a fire. Firefighting should be aimed at surrounding materials. Avoid spraying into containers. If only a small amount of combustibles is present, smother fire with dry chemical. All standard agents are acceptable.

Fire Extinguishing Agents to Avoid:

All standard agents are acceptable.

Special Fire Fighting Precaution:

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Use water spray to keep containers cool and to flush any spillage away from metals and fire. Wear self-contained breathing apparatus with full face protection.

When heated to decomposition, this product may emit toxic fumes containing sulfur oxide gases.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Hands, Arms, and Body:

Wear Acid-resistant apron, protective clothing, rubber boots, and gloves for routine product use. DO NOT USE CLOTHING AND EQUIPMENT MADE OF NYLON.

Other clothing and equipment:

Provide eyewash and quick-drench shower facilities. Neutralization equipment and supplies should be kept readily available.

SECTION 7: HANDLING AND STORAGE

Precautions/Procedures:

Work practices and hygiene practices. Avoid getting chemicals on you or in you. Wash hands after handling chemicals.

Normal Handling:

Do not get in eyes, on skin, or on clothing, avoid breathing mist (if formed). Use with adequate ventilation.

Storage:

Protect from physical damage. Store away from heat and out of direct sunlight. Keep containers upright. Do NOT stack plastic 5 gal. Pails more than 4 containers high in summer. Remove 3rd row of buckets from pallet to permit stacking. If bottom pails show sign of collapse, remove from pallet and set to side. Pails should reform to original configuration.

Spill or Leakage:

If possible, dike spill and mop up or pump up into plastic poly drums or tanks. Label "corrosive" and store as above. Residual may be neutralized with soda ash.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection:

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Not required under normal conditions of use. Use NIOSH/OSHA approved breathing respirator during misting or release response.

Eyes and Face:

Wear Chemical goggles. Optionally, add face shield and/or hat. DO NOT WEAR CONTACT LENSES.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- Physical State: Liquid
- Appearance: Light Green Color
- Odor: Slight acid odor
- pH: Acidic 2.0 or less
- Evaporation Rate: Not Applicable
- Melting Point: Not Applicable
- Boiling Point: Not Applicable
- Specific Gravity: (H₂O=1) Typ. 1.20@ 68°F.
- Vapor Density: (Air=1) Not Applicable
- Solubility in Water: 100%
- Vapor Pressure: Not Applicable
- Flash Point: Not Applicable
- Auto Ignition: Not Applicable
- Flammable Limits in air (% by volume): Lower: Not Applicable
Upper: Not Applicable
- Percentage Volatile by volume (20C.): Not Applicable

SECTION 10: STABILITY AND REACTIVITY

Stability: STABLE. Conditions to avoid. Extreme heat may cause product to decompose, producing toxic fumes of sulfur oxides.

Hazardous Polymerization: Will NOT Occur

Conditions to avoid: Not applicable

Incompatibility: (Materials to avoid)
Metal powders, alkalis, water-reactive materials, carbonates, cyanides, sulfides, and caustics. Avoid combinations of arsenic trioxide and sodium nitrate. Also, avoid combining with methyl isocynoacetate. (May decompose explosively).

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SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity Data: Ferrous Sulfate Heptahydrate

LD50 oral mouse, 1,520 mg/kg

Suspected Cancer Agents:

This product ingredients are not found on the following list;

NTP: No

Cal/OSHA: No

IARC: No

Medical Conditions aggravated by exposure:

Inhalation exposure will aggravate pre-existing respiratory ailments. Skin contact may aggravate pre-existing dermatitis.

Chronic Exposure: Reproductive effects have been reported in animals

Ingestion Exposure: Acute exposure: Side effects of ingestion of iron salts may include heartburn, nausea, gastric discomfort, constipation or diarrhea. Symptoms of severe poisoning may occur within 30 minutes of be delayed for 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 hypertension and pulmonary changes with dyspnea, and emphysema may occur. The average lethal dose of iron is about 200 to 250 per kg of body weight.

First Aide:

In patients not in shock or coma, induce emesis with syrup of ipecac if vomiting has not occurred. Follow with gastric lavage using deferomamine, 2 grams in 1 liter of water which contains sodium bicarbonate 20 gm/L. Leave 10 grams of deferomamine in 50 ml of 5% sodium bicarbonate in the stomach. Maintain airway, blood pressure and respiration. Treat symptomatically and supportively. Get medical attention. Treatment should be administered by qualified medical personnel. The decision whether the severity of poisoning requires administering of any antidotes and actual dose required should be made by qualified medical personnel.

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Recommendation to physician: Treat Symptoms

SECTION 12: ECOLOGICAL INFORMATION

Degradability/aquatic toxicity: Inorganic Material.

Dangerous to aquatic life in high concentrations. May promote eutrophication in waterways. Iron is stable in the environment. Its movement in the soil depends upon the exact compound, the pH the soil type, and the salinity. All work practices should be aimed at elimination any environmental contamination.

Effects of Material on Plants and animals:

Iron is an only moderately toxic by ingestion.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste liquid should be cautiously diluted with water and neutralized with an alkali (lime-soda ash). Neutralized waste much be disposed of in accordance with applicable disposal regulations.

EPA WASTE NUMBER: DOO2, for wastes consisting of this product, IF pH is below 2.0.

<u>General</u>	<u>NFPA Ranking</u>	
Health	2	(Blue Color)
Flammability:	0	(Red Color)
Reactivity	0	(Yellow Color)
Other:	CORROSIVE	(White Color)

SECTION 14: TRANSPORT INFORMATION

DOT CLASSIFICATION:	Corrosive Liquid, Acidic, Inorganic, N.O.S
SHIPPING NAME:	Liquid Fertilizer Compound
HAZARD CLASS NUMBER:	8 (Corrosive)
UN IDENTIFICATION NUMBER:	UN 3264
PACKING GROUP:	III
DOT LABEL REQUIRED:	CORROSIVE
EMERGENCY RESPONSE GUIDE:	154
RQ:	1,000 pounds Ferrous Sulfate

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SECTION 15: REGULATORY INFORMATION

CERCLA Reportable Quantities: 1,000 lbs. Ferrous Sulfate

SECTION 16: OTHER INFORMATION

Revision Date: July 13, 2015

NOTICE:

The information contained herein is believed to be accurate and represents the best information currently available to us. Judgments as to the suitability of information herein for purchaser's purposes are purchaser's responsibility. Although reasonable care has been taken in the preparation of such information, we make no warranty of merchantability or other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use or misuse. Users should make their own investigations to determine the suitability of the information for their own particular purpose. Seller's liability is limited to the products purchase price.