



VOLUNTARY PURCHASING GROUPS, INC.

Safety Data Sheet

Ferti-lome Chelated Liquid Iron and Other Micro Nutrients

SECTION 1: Identification

GHS Product identifier

Product name Ferti-lome Chelated Liquid Iron and Other Micro Nutrients

Product number 10625; 10630; 10635

Recommended use of the chemical and restrictions on use
Fertilizer

Supplier's details

Name Voluntary Purchasing Groups, Inc.
Address 230 FM 87
Bonham TX 75418
USA

Telephone 855-270-4776

Emergency phone number

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

SECTION 2: Hazard identification

General hazard statement

Harmful if swallowed
Causes skin irritation
Causes serious eye irritation

Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200, 2012)

- Acute toxicity, oral, Cat. 4
- Skin corrosion/irritation, Cat. 2
- Eye damage/irritation, Cat. 2A

GHS label elements, including precautionary statements

Pictograms



Signal word

Warning

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Hazard statement(s)

| | |
|------|-------------------------------|
| H302 | Harmful if swallowed |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |

Precautionary statement(s)

| | |
|----------------|---|
| P264 | Wash ... thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER /doctor/...if you feel unwell, |
| P330 | Rinse mouth. |
| P501 | Dispose of contents/container to ... |
| P280 | Wear protective gloves/eye protection/face protection. |
| P302+P352 | IF ON SKIN: Wash with plenty of water/... |
| P321 | Specific treatment (see ... on this label). |
| P332+P313 | If skin irritation occurs: Get medical advice/attention. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |

SECTION 3: Composition/information on ingredients

Mixtures

Hazardous components

| Component | Concentration |
|--|------------------|
| Iron(II) sulfate heptahydrate (CAS no.: 7782-63-0; EC no.: 231-753-5; Index no.: 026-003-01-4) | 10 - 35 % |
| CLASSIFICATIONS: Acute toxicity, oral, Cat. 4; Skin corrosion/irritation, Cat. 2; Eye damage/irritation, Cat. 2A. HAZARDS: H302 - Harmful if swallowed; H315 - Causes skin irritation; H319 - Causes serious eye irritation. [SCLs/M-factors/ATEs]: Skin Irrit. 2; H315: C ≥ 25 % | |
| Zinc sulfate, monohydrate (CAS no.: 7446-19-7) | 1 - 5 % |
| CLASSIFICATIONS: No data available. HAZARDS: No data available. | |
| Copper(II) sulfate pentahydrate (CAS no.: 7758-99-8; EC no.: 231-847-6; Index no.: 029-023-00-4) | 1 - 5 % |
| CLASSIFICATIONS: Acute toxicity, oral, Cat. 4; Eye damage/irritation, Cat. 1; Hazardous to the aquatic environment, short-term (acute), Cat. 1; Hazardous to the aquatic environment, long-term (chronic), Cat. 1. HAZARDS: H302 - Harmful if swallowed; H318 - Causes serious eye damage; H400 - Very toxic to aquatic life; H410 - Very toxic to aquatic life with long lasting effects. [SCLs/M-factors/ATEs]: M=10 | |
| Manganese (II) sulfate (CAS no.: 7785-87-7; EC no.: 232-089-9; Index no.: 025-003-00-4) | 1 - 5 % |
| CLASSIFICATIONS: Specific target organ toxicity (repeated exposure), Cat. 2; Hazardous to the aquatic environment, long-term (chronic), Cat. 2. HAZARDS: H373 - May cause damage to organs [organs] through prolonged or repeated exposure [route]; H411 - Toxic to aquatic life with long lasting effects. | |

SECTION 4: First-aid measures

Description of necessary first-aid measures

| | |
|-------------------------|---|
| General advice | Ensure that medical personnel are aware of the material involved, and take precautions to protect themselves. |
| If inhaled | Move to fresh air. Call a physician if symptoms develop or persist. |
| In case of skin contact | Wash off with soap and water. Get medical attention if irritation develops and persists. |
| In case of eye contact | Rinse with water. Get medical attention if irritation develops and persists. |
| If swallowed | Rinse mouth. Get medical attention if symptoms occur. |

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Most important symptoms/effects, acute and delayed

Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed, if necessary

Provide general supportive measures and treat symptomatically.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Copper(II) sulfate pentahydrate: Sulphur oxides, Copper oxides

Special protective actions for fire-fighters

Self-contained breathing apparatus and full protective clothing must be worn.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep out of low areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

Environmental precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/ aquatic environment.

Prevent

further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains or water courses.

Methods and materials for containment and cleaning up

Stop the flow of material, if this is without risk. Collect spillage. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

SECTION 7: Handling and storage

Precautions for safe handling

Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Avoid release to the environment. Do not empty into drains.

Conditions for safe storage, including any incompatibilities

Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials.

Specific end use(s)

Residential fertilizer

SECTION 8: Exposure controls/personal protection

Control parameters

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1. Copper(II) sulfate pentahydrate (CAS: 7758-99-8 EC: 231-847-6)

REL-TWA (Inhalation): 1 mg/m³ (NIOSH)

Appropriate engineering controls

Use with adequate ventilation to keep airborne levels below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Chemical dust/splash goggles or full-face shield to prevent eye contact. As a general rule, contact lenses should not be worn when working with chemicals because they contribute to the severity of an eye injury.

Skin protection

Rubber gloves with gauntlets.

Body protection

Use body protection appropriate for task. Chemical-resistant coveralls and rubber aprons are generally acceptable.

Respiratory protection

If work conditions generate vapors or mist, wear a NIOSH approved respirator appropriate for those emission levels. Appropriate respirator may be a full facepiece respirator, an SCBA in the pressure demand mode, or a supplied-air respirator.

SECTION 9: Physical and chemical properties

| | |
|--|--------------------------|
| Appearance (physical state, color, etc.) | Green Liquid |
| Odor | Slight Acid |
| Odor threshold | No information available |
| pH | <2.5 |
| Melting point/freezing point | < 32°F (< 0°C) |
| Initial boiling point and boiling range | >212°F (>100°C) |
| Flash point | No information available |
| Evaporation rate | No information available |
| Flammability (solid, gas) | No information available |
| Upper/lower flammability or explosive limits | No information available |
| Vapor pressure | No information available |
| Vapor density | 1.14 @ 68°F |
| Relative density | 100% Soluble in Water |
| Solubility(ies) | 100% Soluble in Water |
| Partition coefficient: n-octanol/water | No information available |
| Auto-ignition temperature | No information available |
| Decomposition temperature | No information available |
| Viscosity | No information available |

Additional properties

| | |
|----------------|--------|
| Physical state | Liquid |
| Color | Green |

SECTION 10: Stability and reactivity

Reactivity

No data available.

Chemical stability

Stabel under normal conditions.

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Possibility of hazardous reactions

Will not occur.

Conditions to avoid

Extreme heat may cause product to decompose, producing toxic fumes of sulfur oxides.

Incompatible materials

Copper(II) sulfate pentahydrate: Powdered metals, Anhydrous copper(II) sulfate, reacts violently with:, hydroxylamine, Magnesium

Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Copper(II) sulfate pentahydrate

LD50 Oral - Rat - 482 mg/kg

LD50 Skin - Rat - >2,000 mg/kg

EC50 - Daphnia magna (water flea) - 0.024 mg/l - 48 h

Ferrous sulfate heptahydrate

LD50 Oral - Mouse - 1,520 mg/kg

Skin corrosion/irritation

Moderate irritant, especially with prolonged exposure. May cause skin ulceration and/or burns.

Serious eye damage/irritation

Moderate irritant. May cause redness, burning, inflammation, and/or damage.

Respiratory or skin sensitization

May cause irritation to mucous membranes, coughing, or breathing difficulties. If exposed to decomposition gases remove from area immediately. Repeated overexposure may cause dermatitis, conjunctivitis, or cataracts.

Germ cell mutagenicity

No information available.

Carcinogenicity

No information available.

Reproductive toxicity

No information available.

Specific target organ toxicity (STOT) - single exposure

No information available.

Specific target organ toxicity (STOT) - repeated exposure

No information available.

Aspiration hazard

No information available.

SECTION 12: Ecological information

Toxicity

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Not Available

Persistence and degradability

Not Available

Bioaccumulative potential

Not Available

Mobility in soil

Not Available

Results of PBT and vPvB assessment

Not Available

Endocrine disrupting properties

Not Available

Other adverse effects

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.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

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.

Packaging disposal

Dispose in a safe manner in accordance with local/national regulations.

Waste treatment

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

Other disposal recommendations

Avoid release to the environment. Do not contaminate lakes, streams, ponds, estuaries, oceans, or other waters by discharge of waste effluents or equipment rinsate.

SECTION 14: Transport information

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Massachusetts Toxic Use Reduction Act (TURA) list

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Chemical name: Ferrous sulfate (heptahydrate)

CAS number: 7782-63-0

TRI listing: unlisted; CERCLA listing: X-reportable; TURA-only listing: no; LHS/HHS/PBT status: LHS-Lower Hazard Status; de minimis concentration threshold: 1 percent. Qualifiers/definitions: Lower Hazard Substance. No chemical fee is charged for this chemical. Changes: CERCLA Chemical added RY1993. Lower Hazard Substance RY2010.

Pennsylvania Right To Know Components

Chemical name: Ferrous sulfate

CAS number: 7782-63-0

Listing note: E-environmental hazard.

Massachusetts Right To Know Components (105 CMR 670)

Chemical name: Ferrous sulfate (heptahydrate)

CAS number: 7782-63-0

Asterisk: no; Refs: F8

Water hazard class (WGK, Germany)

Chemical name: Copper(II) sulfate pentahydrate, cas number: 7758-99-8

WGK hazard class: WGK 3 - Extremely hazardous to water

US EPA TSCA public inventory

Chemical name: Sulfuric acid, manganese(2+) salt (1:1)

CAS number: 7785-87-7

Water hazard class (WGK, Germany)

Chemical name: Manganese (II) sulfate, cas number: 7785-87-7

WGK hazard class: WGK 2 - Hazardous to water

New Jersey Right To Know Components

Product name: Ferti-lome Chelated Liquid Iron and Other Micro Nutrients

NFPA Rating



SECTION 16: Other information

Further information/disclaimer

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