MATERIAL SAFETY DATA SHEET

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Chemical Product
SEQUESTAR® 5% MANGANESE CHELATE SOLUTION

Chemical Description: Aqueous solution of Manganese diammonium ethylenediaminetetraacetic acid Mn(NH₄)₂EDTA

TSCA/CAS No.: The primary CAS number is 55448–20–9.

Manufactured For
Monterey AgResources
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

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>CAS NO.</th>
<th>%</th>
<th>TLV OR PEL</th>
<th>RQ (lbs)</th>
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<td>None.</td>
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SECTION 3. EMERGENCY/HAZARDS OVERVIEW


HEALTH: 2  REACTIVITY: 0  FLAMMABILITY: 1  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. Call a physician immediately.

Skin: Wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. See a physician if skin becomes irritated.

Ingestion: If patient is conscious, induce vomiting. Do not induce vomiting is patient is unconscious. 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: Noncombustible.
Test Method: Not available.
LEL Flammable Limits: Not available.
UEL Flammable Limits: Not available.
Autoignition Temperature: Not pertinent.
Flammability Classification: Noncombustible.
Known Hazardous Products of Combustion: Not known.
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: Aqueous product. For fires involving dried material use water, carbon dioxide, dry chemicals or foam.
Special Firefighting Procedures: Wear positive pressure, self-contained breathing apparatus and goggles. 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 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 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: Amber liquid.
Odor: Slight, musty odor.
pH: 7.0
Vapor Pressure: About same as water.
Vapor Density (Air=1): About same as water.
Boiling Point: 217°F.
Freezing Point: Not available.
Water Solubility: Soluble.
Density: 9.92 lbs./gal.
Evaporation Rate: About same as water.
Viscosity: Not available.
% Volatile: About 55% as water.
Octanol/Water Partition Coefficient: Not available.
Saturated Vapor Concentration: Not available.

SECTION 10. STABILITY AND REACTIVITY

Stability: Stable.
Conditions To Avoid: Not applicable.
Incompatibility: Not applicable.
Hazardous Decomposition Products: Decomposition of dry material – carbon dioxide, carbon monoxide and nitrogen oxides.
Hazardous Polymerization: Will not occur.

SECTION 11. POTENTIAL HEALTH EFFECTS

Acute Effects:
Eyes: Slight irritant. May cause redness.
Skin: Slight irritant, especially from prolonged exposure. May cause redness.
Ingestion: May cause stomach cramps and/or nausea.
Inhalation: Severe overexposure to some manganese compounds has caused manganese pneumonia with congestion and pulmonary edema. Repeated overexposure has resulted in effects to the central nervous system including emotional disturbances.

Subchronic Effects: None known.
Chronic Effects: 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

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

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

SECTION 15. REGULATORY INFORMATION

CERCLA: None.
SARA TITLE III, Section 313 Toxic Chemicals: Manganese compounds (~46%).
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

While the information contained herein is based on data considered accurate and was compiled to comply with the Federal Hazard Communication Standard and the California Hazardous Substances Information and Training Act, it is provided for guidance only. Monterey AgResources does not guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user’s obligation to evaluate and use this product safely and to comply with all applicable laws and regulations; in so doing, user assumes all risk in use of the material. The information contained herein is not to be taken as a warranty or representation for which Monterey AgResources assumes legal responsibility.