

MATERIAL SAFETY DATA SHEET
PRECISION LABORATORIES, LLC

Product Name: COMPLESAL MANGANESE

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: **Complestal® Manganese**
Supplier: PRECISION LABORATORIES, LLC
1429 S. SHIELDS DRIVE
WAUKEGAN, IL 60085

Emergency telephone number: (Chemtrec Information 24 hours) (800) 424-9300
For MSDS, Product Safety, or Regulatory inquiries, call: (847) 596-3001
Customer Service, call: (800) 323-6280

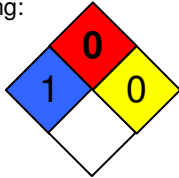
2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS#</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>% By Wt.</u>
The fertilizer composition is a non-hazardous preparation.				

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

NFPA Hazard Rating:



Primary Routes of Exposure:

Eyes: **Yes** Skin: **Yes** Oral: **Yes** Inhalation: **Yes**

Signs and Symptoms of Exposure:

Eye contact: May cause irritation and reddening.
Skin contact: May cause irritation and reddening.
Inhalation: May cause irritation of mucous membranes and coughing.
Ingestion: May cause nausea and vomiting.

4. FIRST AID MEASURES

FIRST AID MEASURES FOR ACCIDENTAL EXPOSURE

Eye Exposure: Check for and remove contact lenses. Immediately flush eyes with water for at least 15 minutes. Cold water may be used. Seek medical attention if irritation occurs.

Skin Exposure: Remove contaminated clothing. Wash affected area with plenty of soap and water. Cold water may be used. Seek medical attention if irritation develops.

Inhalation: Move individual to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Seek immediate medical attention.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Never give fluids or force vomiting if the person is unconscious, is having convulsions or has no gag reflex. If large quantities are swallowed, immediately rinse the mouth and give large amounts of water to drink. Seek medical attention if symptoms persist.

Medical Conditions Aggravated by Overexposure: None known.

5. FIRE-FIGHTING MEASURES

FIRE HAZARD DATA:

Flammability: N/A LEL: N/A UEL: N/A
Auto-ignition temperature: N/D
Flash Point: N/A

Extinguishing Media: Water spray, foam, CO₂, or dry chemicals may be used in areas where this product is stored.
Special Fire Fighting Procedures: Firefighters should wear NIOSH/OSHA approved self-contained breathing apparatus and full protective clothing.

Additional Fire and Explosive Data: Contain escaping vapors with water mist. Prevent fire-fighting water from entering surface water or groundwater. If larger quantities of the product are on fire, the formation of nitrous gases or ammonia is possible.

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6. ACCIDENTAL RELEASE MEASURES

Evacuate the spill area, except for cleanup personnel. Wear NIOSH/OSHA-approved respirator and protective equipment as referenced in Section 8 below. Control spill with adsorbent pads or booms. Recover free liquid. For recovery or disposal, add inert absorbent (sand, earth, sawdust, etc.) to spill area and shovel into containers for disposal. Ensure that product does not reach groundwater, water bodies or drainage system. Product is slippery under foot; flush smooth surfaces thoroughly. See Section 13 below for disposal considerations.

7. HANDLING AND STORAGE

Precautions to be Taken in Handling: Keep away from heat, sparks and flame. Keep container sealed when not in use. Safety goggles with full-face shield and eyewash recommended. USDA-accepted nitrile (CFR-20) or neoprene rubber (CFR-21) recommended. Wear appropriate clothing to prevent repeated or prolonged skin contact. Use only with adequate mechanical exhaust ventilation.

Precautions to be Taken in Storage: Product should be stored in a dry place at temperatures between 32 and 86 °F. Do not store in metal containers (corrosion risk). Do not store together with food, beverage and animal feed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Note: When selecting personal protective equipment and clothing, follow all of the manufacturer specifications and recommendations that apply to your specific operation and processing conditions. Take into consideration all working conditions and all chemicals to be handled or processed.

Eye Protection: Wear splash-proof chemical safety goggles. Contact lenses should not be worn when working with chemicals.

Skin Protection: Wear chemical-resistant gloves, long-sleeved shirt, pants, socks and shoes to minimize skin contact. As precautions, wash hands and face with mild soap and water before eating, drinking, smoking or using restroom. After each shift, clean all protective equipment, wash work clothes, and shower.

Inhalation Protection: Recommended. Protect against spray mists.

Other Protection: Eye wash fountains and drench showers should be located within 100 feet or a 10 second walk or the work area per ANSI Z358.1-1990.

Personal Protection in Case of Large Spill: Splash goggles. Full suit. Boots, gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Appearance & Odor:	Green, low-viscosity suspension with a product-specific odor.
Specific Gravity:	1.45
Boiling Point:	N/D
pH: (original state)	Approximately 6.5
pH at 2.08 oz./gal. H₂O at 68 °F	Approximately 7.8
Solubility in Water (68 °F):	Highly soluble.

10. STABILITY AND REACTIVITY

Chemical Stability: The product is stable under normal conditions.

Incompatibility: Avoid strong alkaline materials and strong acid materials.

Hazardous Decomposition Products: Reacts with alkalis setting ammonia free.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Store within recommended temperature range (see Section 7 above). Avoid direct sunlight and prevent product from drying.

11. TOXICOLOGICAL INFORMATION

No toxicological data is available for this product. No toxicological effects can be expected when the product is handled and used with due care and attention.

12. ECOLOGICAL INFORMATION

Slightly water hazardous. Ensure that product does not reach groundwater, water bodies or drainage system. No ecological problems can be expected when the product is handled and used with due care and attention.

13. DISPOSAL CONSIDERATIONS

Disposal Methods: Dispose of material in compliance with applicable federal, state and local environmental regulations. Recycle or rework material if at all possible. Incinerate material at an approved facility, or treat at an acceptable waste treatment facility or municipal waste treatment plant after proper testing and approval of waste samples.

Container Reuse: An empty container can contain product residue, and should be not reused. If not professionally cleaned and reconditioned, crushing or other means is recommended to prevent unauthorized reuse.

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14. TRANSPORT INFORMATION

DOT Status (Highway and rail): N/E
IATA Status (Air): N/E

15. REGULATORY INFORMATION

SARA HAZARD: Title III, Section 313: Contains no Section 313 listed substances subject to reporting.
AICS (Australia): Components listed
DSL (Canada): Components listed
EINECS (Europe): Components listed
TSCA: Components listed

WHILE INFORMATION AND RECOMMENDATIONS SET FORTH HEREIN ARE BELIEVED TO BE ACCURATE AS OF THE DATE HEREON, PRECISION LABORATORIES, LLC MAKES NO WARRANTY WITH RESPECT THERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON. THE COMPLESAL TRADEMARK AND MANUFACTURING PROCESS IS UNDER LICENSE OF AGLUKON SPEZIALDÜNGER, DÜSSELDORF, GERMANY.

N/R—Not Rated
N/D—Not Determined
N/A—Not Applicable
N/E—Not Established