

MATERIAL SAFETY DATA SHEET

POTATO SEED TREATER 6%

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED FOR:

LOVELAND PRODUCTS, INC.
P.O. Box 1286 • Greeley, CO 80632-1286

24-Hour Emergency Phone: 1-800-424-9300
Medical Emergencies: 1-866-944-8565
U.S. Coast Guard National Response Center: 1-800-424-8802

PRODUCT NAME: POTATO SEED TREATER 6%
CHEMICAL NAME: Mancozeb; a coordination product of zinc ion and manganese ethylene bisdithiocarbamate*
CHEMICAL FAMILY: Dithiocarbamate Fungicide
EPA REG. NO.: 2935-541-34704
MSDS Number: 2935541-09-LPI

MSDS Revisions: New

Date of Issue: 11/13/09

Supersedes: New

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – CAUTION – Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

This product is off-white to light brown powder with virtually no odor.

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
A coordination product of zinc ion and manganese ethylene bisdithiocarbamate*	6.00	8018-01-7	not listed
Manganese	(1.20)		
Zinc	(0.15)		
Ethylene bisdithiocarbamate ion (C ₄ H ₆ N ₂ S ₄)	(4.65)		
Other Ingredients	94.00		

4. FIRST AID MEASURES

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: **1-866-944-8565**. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): Not applicable
FLAMMABLE LIMITS (LFL & UFL): Not applicable
EXTINGUISHING MEDIA: Considered non-combustible, use medium appropriate to surrounding fire. Dry chemical, carbon dioxide, foam, water spray or fog.
HAZARDOUS COMBUSTION PRODUCTS: Oxides of sulfur, oxides of nitrogen, hydrogen sulfide, carbon disulfide, and other unknown hazardous material may be formed in a fire situation.
SPECIAL FIRE FIGHTING PROCEDURES: If water is used to fight fire or cool containers, contain run-off by diking to prevent contamination of water supplies. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Dusts may form explosive mixtures with air; avoid using heavy water streams.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Avoid breathing dusts. Cover with an absorbent such as pet litter and sweep up dry spills and transfer to approved chemical containers. Wash the spill area with water containing a strong detergent, absorb with pet litter or other absorbent material, sweep up and place in a chemical container. Flush the area with water to remove any residue. Check local, state and federal regulations for proper disposal.

CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

HANDLING: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE: Store in safe manner. Store in original container only. Store in cool, dry place. Never allow this product to become wet during storage. Moisture may lead to chemical changes which reduce fungicidal efficacy and create vapors which may be flammable. Reduce stacking height where local conditions, such as humidity or pallet overhang, can affect package strength. Personnel should use clothing and equipment consistent with good pesticide handling. Do not store under conditions which might adversely affect the container or its ability to function properly. Such conditions include, but are not limited to, positioning of the container in storage, storage temperature, potential for crushing or damage due to stacking, and penetration of moisture. Do not contaminate water, food, or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Large scale seed piece treatment facilities that, on any given week in the current year or in the past year, treated > 50,000 cwt (> 2,500 tons) must use dust collection system during the treatment of the seed pieces that prevents dust from contacting handlers or other persons. Handlers using the dust collection system must wear: A) Long-sleeved shirt and long pants; B) Chemical-resistant gloves (except pilots, groundboom applicators and airblast applicators) C) Shoes and socks and D) must be provided with, have immediately available, and wear in an emergency, such as a broken package, spill, or equipment breakdown: a NIOSH-approved respirator with dust/mist filter with MSHA/NIOSH approval number prefix TC-21C or any N, R, P, or HE filter.

RESPIRATORY PROTECTION: Not normally required. If vapors or dusts exceed acceptable levels, wear a NIOSH approved pesticide respirator.

EYE PROTECTION: Chemical goggles or shielded safety glasses.

SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, hat, rubber boots with socks. Wear rubber or chemical-resistant gloves.

	OSHA PEL 8 hr TWA	ACGIH TLV-TWA
Nuisance Particulates	15 mg/m ³ (total dust)	none established

Personal Protective Equipment: Loaders, applicators, and other handlers must wear: A) Long-sleeved shirt and long pants; B) Chemical-resistant gloves made out of any waterproof material; C) Shoes and socks and D) a NIOSH-approved respirator with dust/mist filter with MSHA/NIOSH approval number prefix TC-21C or any N, R, P, or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Off-white to light brown powder with virtually no odor	SOLUBILITY: Insoluble
SPECIFIC GRAVITY (Water = 1): 0.48-0.64 g/ml	BULK DENSITY: 30-40 lbs/ft ³
VAPOR PRESSURE: Not applicable	BOILING POINT: Not applicable
PERCENT VOLATILE (by volume): Not applicable	EVAPORATION RATE: Not applicable

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Keep away from fire and sparks. Store in a safe place. Do not allow to become wet or overheated in storage.

INCOMPATIBILITY: Acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of sulfur, oxides of nitrogen, hydrogen sulfide, carbon disulfide, and other unknown hazardous material may be formed in a fire situation.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): 4500 mg/kg

Eye Irritation (rabbit): Causes substantial but temporary eye injury.

Inhalation LC₅₀ (rat): > 5.14 mg/L

Carcinogenic Potential: None listed in OSHA, NTP, IARC or ACGIH

Acute Dermal LD₅₀ (rabbit): >5000 mg/kg

Skin Irritation (rabbit): Causes mild irritation

Skin Sensitization (guinea pig): Not established.

12. ECOLOGICAL INFORMATION

This pesticide is toxic to aquatic organisms. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply directly to water, or to areas where surface water is present, or to inter-tidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. Do not contaminate water, food or feed by storage or disposal.

14. TRANSPORT INFORMATION

DOT Shipping Description: NOT REGULATED BY USDOT.
U.S. Surface Freight Classification: INSECTICIDES OR FUNGICIDES, INSECT OR ANIMAL REPELLENTS; NOI; OTHER THAN POISON (NMFC 102120; CLASS: 60)

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:	NFPA		HMIS
	2 Health	0 Least	2 Health
	0 Flammability	1 Slight	0 Flammability
	0 Instability	2 Moderate	0 Reactivity
		3 High	H PPE
		4 Severe	

SARA Title III Hazard Category: Immediate Y Fire N Sudden Release of Pressure N
 Delayed N Reactive N

Reportable Quantity (RQ) under U.S. CERCLA: Not listed
SARA, Title III, Section 313: Manganese Compounds 6%; Zinc Compounds 6%
RCRA Waste Code: Not listed
CA Proposition 65: Not listed

16. OTHER INFORMATION

MSDS STATUS: New

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental/ Regulatory Services

This product is not for use in Jefferson County, Idaho

Disclaimer and Limitation of Liability: This data sheet was developed from information on the constituent materials identified herein and does not relate to the use of such materials in combination with any other material or process. No warranty is expressed or implied with respect to the completeness or ongoing accuracy of the information contained in this data sheet, and LOVELAND PRODUCTS, Inc. disclaims all liability for reliance on such information. This data sheet is not a guarantee of safety. Users are responsible for ensuring that they have all current information necessary to safely use the product described by this data sheet for their specific purpose.