

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: CAPTAN 4L
CHEMICAL NAME: Captan: N-trichloromethylthio-4-cyclohexene-1,2-dicarboximide
CHEMICAL FAMILY: Fungicide
EPA REG. NO.: 34704-1076
MSDS Number: 001076-13-LPI

MSDS Revisions: New

Date of Issue: 04/16/14

Supersedes: New

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – DANGER-PELIGRO - Si usted no entienda la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.) Corrosive. Causes irreversible eye damage. Harmful if swallowed or absorbed through the skin or inhaled. Do not get in eyes or on clothing. Avoid breathing spray mist.

This product is off white-colored viscous liquid with slight musty odor.

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Captan	38.75	133-06-2	5 mg/m ³ I
Other Ingredients	61.25		

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.

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have 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.

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.

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

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage. Corrosive to the eye. If splashed in eyes refer promptly to an ophthalmologist for evaluation, medical treatment, and follow-up care.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): Will not flash.

FLAMMABLE LIMITS (LFL & UFL): Not known

EXTINGUISHING MEDIA: Foam, dry chemical, carbon dioxide (CO₂), or water spray.

HAZARDOUS COMBUSTION PRODUCTS: Hydrogen chloride, hydrogen cyanide, oxides of nitrogen, carbon monoxide.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus with full protective clothing. Fight fire from upwind and keep all non-essential personnel out of area.

UNUSUAL FIRE AND EXPLOSION HAZARDS: If water is used to fight fire and cool the containers, contain run-off by diking to prevent contamination of water supplies. Containers in fire may burst or explode from excessive heat. Dust could form a potentially explosive mixture in air. Avoid dust formation.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Control the spill at its source. Contain the spill to prevent it from spreading, contaminating soil, or entering sewage and drainage systems or any body of water. Clean up spills immediately. Cover entire spill with absorbent material such as sand, silica gel, acid binder, universal binder, or sawdust, scrape up and place into compatible disposal containers. Scrub the spill area with water and detergent. Pick up wash liquid with additional absorbent and place into disposal container. Once all material is cleaned up and placed in a disposal container, seal the container(s) and handle in an approved manner. 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: Wear goggles or face shield when handling. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately and launder separately before reuse. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE: Store only in original container in locked storage areas. Avoid cross-contamination with other pesticides and fertilizers during handling and storage. Do not store near heat or open flame. Protect from temperatures below 0°F / -17.8°C. Not for use or storage in or around the home. Do not contaminate water, food or feed by storage or disposal. Do not store near oxidizing agents.

Personal Protective Equipment: All mixers, loaders, applicators, flaggers, and other handlers (including handlers participating in transplanting as part of root dip treatments and greenhouse-soil treatments) must wear: long sleeved shirt and long pants, goggles or faceshield, chemical resistant gloves made of any waterproof material, such as polyethylene or polyvinyl chloride (except for pilots, flaggers, and applicators driving motorized ground equipment), chemical resistant apron when mixing/loading, participating in dip treatments, cleaning up spills, cleaning equipment, or otherwise exposed to the concentrate. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets with requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

RESPIRATORY PROTECTION: Dependent on job function. Refer to Section 7 (above): Personal Protective Equipment for further information.

EYE PROTECTION: Goggles or faceshield.

SKIN PROTECTION: Wear protective clothing as indicated in Section 7 (above).

	OSHA PEL 8 hr TWA	ACGIH TLV-TWA
Captan	not listed	5 mg/m ³ I

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Off white-colored viscous liquid with slight musty odor.

SPECIFIC GRAVITY (Water = 1): 1.202 g/ml

VAPOR PRESSURE: Not established

PERCENT VOLATILE (by volume): Not established

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.

BULK DENSITY: 10.03 lbs/gal.

BOILING POINT: 212°F / 100°C

EVAPORATION RATE: Not established

SOLUBILITY: Dispersible

pH: 7.22 (neat)

10. STABILITY AND REACTIVITY

STABILITY: Stable.

CONDITIONS TO AVOID: Avoid temperatures above 115°F / 46°C and high moisture.

INCOMPATIBILITY: Acidic and oxidizing materials.

HAZARDOUS DECOMPOSITION PRODUCTS: In case of fire, hazardous decomposition products such as hydrogen chloride, hydrogen cyanide, oxides of nitrogen, oxides of carbon.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): >5,000 mg/kg

Eye Irritation (rabbit): Severe irritant, corrosive

Inhalation LC₅₀ (rat): >0.9 mg/L (4 hr).

Carcinogenic Potential: NIOSH lists Captan as a potential occupational carcinogen, with no further categorization. IARC lists Captan as 3: Unclassifiable as to Carcinogenicity in Humans. ACGIH lists Captan as A3: Confirmed animal carcinogen with Unknown Relevance to Humans. None listed in OSHA and NTP.

Acute Dermal LD₅₀ (rat): >2,000 mg/kg

Skin Irritation (rabbit): Moderate irritant

Skin Sensitization (guinea pig): Potential sensitizer

12. ECOLOGICAL INFORMATION

This pesticide is toxic to fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment washwaters 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: Non-refillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at www.acrecycle.org. If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **For packages up to 5 gallons: Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Repeat this procedure two more times. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. **For packages greater than 5 gallons and less than 56 gallons: Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. **For packages greater than 56 gallons:** To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. **For refillable containers:** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Offer for recycling or reconditioning, if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

14. TRANSPORT INFORMATION

DOT Shipping Description: RQ UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CAPTAN), 9, III ERG GUIDE 171

U.S. Surface Freight Classification: INSECTICIDES OR FUNGICIDES, INSECT OR ANIMAL REPELLENTS; NOI; OTHER THAN POISON (NMFC 102120; CLASS: 60)

Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes.

15. REGULATORY INFORMATION

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

SARA Hazard Notification/Reporting

SARA Title III Hazard Category:

Immediate	<u>Y</u>	Fire	<u>N</u>	Sudden Release of Pressure	<u>N</u>
Delayed	<u>Y</u>	Reactive	<u>N</u>		

Reportable Quantity (RQ) under U.S. CERCLA: Captan (CAS: 133-06-2) 10 pounds

SARA, Title III, Section 313: Captan (CAS: 133-06-2)

RCRA Waste Code: Not listed

CA Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

DANGER – This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

16. OTHER INFORMATION

MSDS STATUS: New**PREPARED BY:** Registrations and Regulatory Affairs**REVIEWED BY:** Environmental Health and Safety

I: Measured as inhalable fraction of the aerosol.

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.