

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

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

- 1.1 **PRODUCT IDENTIFIER:** EPA REGISTRATION NO. 34704-1076
TRADE NAME: CAPTAN 38.75% FL
- 1.2 **RECOMMENDED USE:** FUNGICIDE
- 1.3 **SUPPLIER DETAILS:**
LOVELAND PRODUCTS, INC.
P.O. Box 1286 • Greeley, CO 80632-1286
- 1.4 **24 Hour Emergency Phone:** 1-800-424-9300 - **Medical Emergencies:** 1-866-944-8565 – **Product Information:** 1-888-574-2878 (LPI-CUST)
U.S. Coast Guard National Response Center: 1-800-424-8802

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to 29 CFR 1910.1200

Acute Toxicity – Inhalation	Category 4	H332
Eye Damage/Irritation	Category 1	H318
Sensitization - Skin	Category 1	H317

2.2 Label elements



- Signal word: DANGER
- Hazard Statement: H332 – Harmful if inhaled.
H318 – Causes serious eye damage.
H317 – May cause an allergic skin reaction.
- Precautionary Statement: P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.
P271 – Use only outdoors or in a well-ventilated area.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P272 – Contaminated work clothing must not be allowed out of the workplace.
- (Prevention):
- Precautionary Statement: P304+P340: IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
(Response): P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P305+P351+P338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 – Immediately call a POISON CENTER or doctor/physician.
P302+P352 – IF ON SKIN: Wash with plenty of soap and water for several minutes.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P321 – Specific treatment (see additional First Aid information on the product label).
P363 – Wash contaminated clothing before reuse.
- Precautionary Statement: (Storage): P403+P235 – Store in a well-ventilated place. Keep cool.
(Disposal): P501 – Dispose of contents/container in accordance with federal, state and local regulations.

2.3 Other hazards

None known



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3. COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances

3.2 Mixtures

Classification according to 29 CFR 1910.1200

Chemical Name:	CAS No.	Classification	Concentration [%]
Captan	133-06-2	Inh tox. 4; H332 Eye dam/irrit. 1; H318 Skin sens. 1; H317	38.75
*Other ingredients	Proprietary		61.25

*Ingredients not specifically listed are non-hazardous or are to be considered proprietary or confidential business information per 29 CFR 1910.1200(i)

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

General Advice: Get medical attention if symptoms occur.

- 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 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 person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a 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 further treatment advice.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Harmful if inhaled. Corrosive to the eyes. Skin exposure may cause sensitization.

4.3 Immediate Medical Attention and Special Treatment

NOTES TO PHYSICIAN: Probable muscular 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.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565

Take container, label or product name with you when seeking medical attention.

5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Dry chemical, carbon dioxide (CO₂), foam, water spray or fog.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: May produce gases such as hydrogen chloride, hydrogen cyanide, oxides of nitrogen and oxides of carbon.

5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Special Protective Equipment for Firefighters: Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry.



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6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions: Avoid inhalation of dusts, mists and vapors, and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing.

6.2 ENVIRONMENTAL PRECAUTIONS

Environmental Precautions: This pesticide is toxic to fish. Do not apply directly to water, 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.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

Methods for Clean-Up: Absorb and/or contain spill with inert material, then place in a suitable container. Check local, state and federal regulations for proper disposal. Never return spills to original containers for re-use.
CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

Advice on Safe Handling: Do not breathe mist, vapors or spray. 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 immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

7.2 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers: Store only in original container in locked storage areas. If a spill occurs, visible puddles or drops should be covered with a dry absorbent such as clay, sawdust, lime or soda ash. Sweep up and dispose of in a permitted disposal facility. 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. Not for use or storage in or around the home.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:

OCCUPATIONAL EXPOSURE LIMITS

U.S. Workplace Exposure Level (ACGIH) TLVs

Components	Type	Value
Captan	TWA	5 mg/m ³ I (Measured as Inhalable fraction of the aerosol)

U.S. Workplace Exposure Level (OSHA) PELs

Components	Type	Value
No listings		

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Specimen	Sampling time
No listings			

8.2 EXPOSURE CONTROLS:

Engineering Measures

When engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation or engineering controls specific to the task at hand (refer to product labeling for specific information).

Individual Protection Measures:

Eye / Face Protection: Goggles, face shield, or shielded safety glasses are recommended.
 Skin Protection: Long-sleeved shirt and long pants. Chemical-resistant gloves. Chemical-resistant footwear and socks. Chemical resistant apron when mixing or loading.
 Respiratory Protection: Dependent on job function. If vapors or dusts exceed acceptable levels, wear a MSHA/NIOSH approved air-purifying respirator with any cartridges/filter approved for pesticides. If respirators are used, a program should be in place to assure compliance with 29 CFR 1910.134, the OSHA Respiratory Protection standard. Wear air supplied respiratory protection if exposure concentrations are unknown.



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9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 APPEARANCE:** Liquid.
ODOR: Mild.
ODOR THRESHOLD: No data available.
COLOR: off-white to tan.
pH: 7.22
MELTING POINT / FREEZING POINT: No data available
BOILING POINT: No data available
FLASH POINT: Does not flash.
FLAMMABILITY (solid, gas): No data available.
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available.
VAPOR PRESSURE: No data available.
SOLUBILITY: Dispersible.
PARTITION CO-EFFICIENT, n-OCTANOL / WATER: No data available.
AUTO-IGNITION TEMPERATURE: No data available.
DECOMPOSITION TEMPERATURE: No data available.
VISCOSITY (Dynamic): 1,340 cP @ 25°C
SPECIFIC GRAVITY (Water = 1): 1.2 g/ml
DENSITY: 10.01 lbs./gal. / 1.2 kg/L

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

10.1 REACTIVITY

Stable

10.2 CHEMICAL STABILITY

Stable under normal temperature conditions

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

May decompose if heated. Will not polymerize.

10.4 CONDITIONS TO AVOID

Extreme heat. Avoid moisture.

10.5 INCOMPATIBLE MATERIALS

Alkaline materials. Acidic materials.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition products include, but are not limited to, hydrogen chloride, hydrogen cyanide, oxides of carbon and oxides of nitrogen.

11 TOXICOLOGICAL INFORMATION

11.3 LIKELY ROUTES OF EXPOSURE

Eye contact. Inhalation. Skin contact.

LC₅₀ (rat): > 0.9 mg/L (4 HR)

LD₅₀ Oral (rat): > 5,000 mg/kg

LD₅₀ Dermal (rat): > 2,000 mg/kg

Acute Toxicity Estimates: No data available

Skin Irritation (rabbit): May cause an allergic skin reaction.

Eye Irritation (rabbit): Causes serious eye damage.

Specific Target Organ Toxicity: No data available.

Aspiration: No data available

Skin Sensitization (guinea pig): Potential sensitizer.

Carcinogenicity: NIOSH-Ca (Potential occupational carcinogen, with no further categorization). IARC-3 (Unclassifiable as to Carcinogenicity in Humans). TLV-A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans).

Germ Cell Mutagenicity: No data available

Interactive Effects: None known



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12 ECOLOGICAL INFORMATION

12.3 ECOTOXICITY

Ecotoxicological Data

	Species	Test Results
Captan	Onchorynchus mykiss	0.186 mg/L – 96-hour LC ₅₀
	Daphnia Magna	7.1 mg/L – 48-hour EC ₅₀

Drift or runoff may adversely affect non-target plants.
Do not apply directly to water.
Do not contaminate water when disposing of equipment wash water.
Do not apply when weather conditions favor drift from target area.

12.2 PERSISTENCE AND DEGRADABILITY

Biodegradability: No data available.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: No data available.

12.4 MOBILITY IN SOIL

No data available.

12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

13 DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

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 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 1/4 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. 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 1/4 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 the 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.

14 TRANSPORT INFORMATION

14.3 LAND TRANSPORT

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)



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15 REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

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

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 lbs.

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.

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. Following is the hazard information as required on the pesticide label:

DANGER

Corrosive
Causes irreversible eye damage
Harmful if swallowed or absorbed through skin or inhaled.
Do not get in eyes or on clothing.
Avoid breathing spray mist.

16 OTHER INFORMATION

SDS STATUS: Format revised.

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

EPA REG. NO.: 34704-1076

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