

## SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>COMPANY ADDRESS:</b>	<b>EMERGENCY TELEPHONE NUMBERS:</b>
RedEagle International, LLC	(800) 424-9300 (CHEMTREC, transportation and spills)
5143 S. Lakeland Drive, Suite 4	(800) 222-1222 American Association of Poison Control Centers
Lakeland, FL 33813	
<b>PRODUCT NAME:</b>	CAPTAN 4L
<b>CHEMICAL NAME:</b>	Captan (N-trichloromethylthio-4-cyclohexene-1, 2-dicarboximide)
<b>PRODUCT USE:</b>	Fungicide
<b>PRODUCT CODE:</b>	EPA Reg. No. 85678-13

## SECTION 2 - HAZARDS IDENTIFICATION SUMMARY

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

Off – white viscous liquid with no appreciable odor.

**HEALTH HAZARDS: DANGER - PELIGRO. CORROSIVE.** Causes irreversible eye damage if not treated promptly. Harmful if swallowed or inhaled.

**PHYSICAL HAZARDS:** Can decompose at high temperatures forming toxic gases.

**ENVIRONMENTAL HAZARDS:** Highly toxic to fish.



### HAZARD STATEMENTS:

Can cause eye burns and permanent tissue damage. Harmful if swallowed or inhaled. Thermal decomposition may yield the following: oxides of nitrogen and carbon and chlorine-containing compounds

## SECTION 3 – COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS No.	TLV (Units)
Captan	38.75	133-06-2	5 mg/m <sup>3</sup> I
Inert ingredients	61.25	n/a	

## SECTION 4 - FIRST AID MEASURES

First Aid responders should use protective equipment in Section 8 if there is a potential for exposure to product.

**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 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 poison control center or doctor. Do not give anything by mouth to an unconscious person.

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

**NOTE TO PHYSICIAN:** No specific antidote. Treat symptomatically.

Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

## SECTION 5 - FIRE FIGHTING MEASURES

### NFPA (National Fire Protection Association) HAZARD RATINGS

HEALTH	FLAMMABILITY	REACTIVITY
2	0	1

4=Severe   3=Serious   2=Moderate   1=Slight   0=Minimal

**FLASHPOINT:** Will not flash.

**EXTINGUISHING MEDIA:** Considered non-combustible, use medium appropriate to surrounding fires. Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

**FIRE AND EXPLOSION HAZARD:** Can burn in fire, releasing irritating and toxic gases such as hydrogen chloride, hydrogen cyanide, oxides of nitrogen, carbon monoxide. Dust could potentially form explosive mixture in air. Avoid dust formation.

**FIRE FIGHTING INSTRUCTIONS:** Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Fire exposed containers can build up pressure and should be kept cool with water spray if possible. Dike and collect water used to fight fire to prevent environmental damage due to run off.

**FIRE FIGHTING EQUIPMENT:** Full firefighting turn-out gear (Bunker gear) including self-contained breathing apparatus with full face piece.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**IN CASE OF SPILLS OR LEAKS:** Stop the source of the spill if safe to do so. Contain the spill to prevent further contamination of soil, surface water, or ground water. Clean up spills immediately. Observe precautions in Section 8 of this document. Keep unnecessary and unprotected personnel from entering.

**SMALL SPILL:** Absorb small spills with sand, vermiculite, or other absorbent inert ingredients. Place material in a container for proper disposal.

**LARGE SPILL:** Dike spill using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse or disposal. Allow absorbed material to solidify and scrape up for disposal. After removal, clean contaminated area thoroughly with water. Pick up wash liquid with additional absorbent for disposal. Minimize use of water to prevent environmental contamination.

**CAUTION:** Minimize use of water to prevent runoff into municipal sewers or other open bodies of water and minimize environmental contamination. Be sure to isolate any contaminated water. Contact your State Pesticide or Environmental Control Agency, or nearest EPA Regional Office for guidance on disposal.

## SECTION 7 - HANDLING AND STORAGE

### KEEP OUT OF REACH OF CHILDREN!

**HANDLING:** Use only in a well-ventilated area. Wear proper safety equipment specified in Section 8 when mixing, loading or otherwise handling concentrate. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing if pesticide gets inside clothing. Then wash thoroughly and put on clean clothing. Remove PPE after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**STORAGE:** Keep pesticide in original container. Keep container tightly closed when not in use. Store in a locked storage area. Avoid cross contamination with other pesticides or fertilizers during handling and storage. Protect from excessive heat. Store in a cool, dry place. Do not contaminate water, feed, or food by storage and disposal.

<b>SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION</b>
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**EXPOSURE LIMITS:** (8 hour TWA):

COMPONENT	OSHA PEL	ACIGH TLV
Captan	Not listed	5 mg/m <sup>3</sup> I

**ENGINEERING CONTROLS:** Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Local mechanical exhaust ventilation may be required. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**PERSONAL PROTECTIVE EQUIPMENT:** All mixers, loaders, applicators, and other handlers; (including handlers participating in seeding and transplanting as part of root-dip or greenhouse-soil treatments) must wear: Long-sleeved shirt and long pants, shoes plus socks, protective eyewear, chemical-resistant gloves made of any waterproof material (except applicators driving motorized equipment) such as barrier laminate, butyl rubber, natural rubber, neoprene rubber, or nitrile rubber > 14 mils, chemical-resistant apron when participating in dip treatments, a NIOSH-approved dust mist filtering respirator with MSHA/NIOSH-approval number prefix TC-21C or a NIOSH approved respirator with any N, R, P, or HE filter when mixing, loading, 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, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS:** 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 outside of gloves before removing. As soon as possible wash thoroughly and change into clean clothing.

<b>SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES</b>
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<b>Appearance:</b>	Off-white liquid
<b>Odor:</b>	Mild odor
<b>pH:</b>	5.5 - 6.5
<b>Melting Point:</b>	Not applicable
<b>Boiling Point:</b>	220°F
<b>Freezing Point:</b>	25°F
<b>Flash Point:</b>	Will not flash
<b>Evaporation Rate:</b>	No data
<b>Flammability:</b>	Not flammable
<b>Flammability Limits:</b>	Not applicable
<b>Vapor Pressure:</b>	No data
<b>Vapor Density:</b>	Not applicable
<b>Density:</b>	1.15 – 1.21 g/ml (9.60 – 10.10 lb/gl)*
<b>Solubility:</b>	Emulsifies
<b>Partition Coefficient:</b>	No data
<b>Auto-Ignition Temperature:</b>	No data
<b>Decomposition Temperature:</b>	No data
<b>Viscosity:</b>	289.9 cSt (20° C); 121.5 cSt (40° C)

\* Listed density is an approximate value and does not necessarily represent that of a specific batch.

**SECTION 10 - STABILITY AND REACTIVITY**

**PRODUCT REACTIVITY:** Non-reactive  
**CHEMICAL STABILITY:** Stable, however may decompose if heated.  
**HAZARDOUS REACTION/POLYMERIZATION:** Product will not undergo polymerization.  
**CONDITIONS TO AVOID:** Avoid temperatures below 25°F and above 115°F.  
**INCOMPATIBLE MATERIALS:** Acidic and oxidizing materials  
**HAZARDOUS DECOMPOSITION PRODUCTS:** Oxides of nitrogen and carbon and chlorine-containing compounds

**SECTION 11 - TOXICOLOGICAL INFORMATION**

**ACUTE TOXICITY:**  
Oral LD<sub>50</sub> (rat): > 2,000 mg/kg  
Dermal LD<sub>50</sub> (rat): >2,000 mg/kg  
Inhalation LC<sub>50</sub> (rat): > 0.5 mg/l  
Eye irritation (rabbit): Corrosive  
Skin irritation (rabbit): Slight  
Sensitization (guinea pig): Potential sensitizer  
**CARCINOGEN STATUS:**  
OSHA Not listed  
NTP Not listed  
IARC Group 3  
**CARCINOGEN STATUS:** The active ingredient, Captan, has been identified by US EPA as a probable human carcinogen.  
**TERATOGENICITY:** Studies have been inconclusive.  
**MUTAGENICITY:** Weight of evidence indicates that captan is non-mutagenic

**SECTION 12 - ECOLOGICAL INFORMATION**

**ENVIRONMENTAL SUMMARY:** 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 wash waters or rinsate.  
**FATE:** Relatively non-mobile in soil with a half-life of 1 - 10 days depending on soil type. Half-life in water is < 1 day.  
**FISH TOXICITY:** (technical)  
96 hour LC<sub>50</sub>, Rainbow trout - 35 ppb  
96 hour LC<sub>50</sub>, Bluegill- 75 ppb  
**AVIAN TOXICITY:** (technical)  
Oral LD<sub>50</sub>, Bobwhite quail- > 2,000 mg/kg  
Oral LD<sub>50</sub>, Mallard duck - > 2,000 mg/kg  
**BEE TOXICITY:** (technical) - > 10 ug/bee

**SECTION 13 - DISPOSAL CONSIDERATIONS**

Do not contaminate water, food or feed by storage or disposal.

**PESTICIDE DISPOSAL:** Excess pesticide spray, mixture, or rinsate resulting from the use of this product can be disposed of onsite according to label instructions or at an approved waste disposal facility. Improper disposal is a violation of Federal Law.

**CONTAINER DISPOSAL:** Non-refillable container: Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. 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. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. Refer to the product label for additional and complete Container Handling instructions.

<b>SECTION 14 - TRANSPORT INFORMATION</b>
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**DOT SHIPPING DESCRIPTION:** UN3082, Environmentally Hazardous Substance, Solid, N.O.S. (captan), 9, PG III, RQ

**TRANSPORT HAZARD CLASS:** 9

**UN NUMBER:** 3082

**DOT PACKING GROUP:** III

**DOT EMERGENCY RESPONSE GUIDE:** 171

<b>SECTION 15 - REGULATORY INFORMATION</b>
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**CERCLA REPORTABLE QUANTITY:** Captan (CAS: 133-06-2) 10lbs (2.5 gallons of product)

**SARA TITLE III HAZARD CATEGORY:** Immediate and Delayed Health

**SARA TITLE III, SECTION 313:** Yes (captan)

**CALIFORNIA PROP 65:** This product contains chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

**TSCA:** Exempted - solely for FIFRA regulated use.

**RCRA CLASSIFICATION:** Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing this product or derived from the product should be classified as a hazardous waste.

<b>SECTION 16 - OTHER INFORMATION</b>
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**NFPA (National Fire Protection Association) HAZARD RATINGS**

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This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. This data sheet is not a guarantee of safety. Users are responsible for insuring that they have all current information necessary to safely use the product described by this data sheet for their specific purpose.

It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.