**SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**COMPANY ADDRESS:**
RedEagle International LLC
1925 E. Edgewood Dr – Ste. 105
Lakeland, Florida 33803

**PRODUCT NAME:** CAPTAN 4L
**CHEMICAL NAME:** N-Trichloromethylthio-4-cyclohexene-1, 2-dicarboximide
**CHEMICAL FAMILY:** phthalimide fungicide
**PRODUCT CODE:** EPA Reg. No. 85678-13

**SECTION 2 – COMPOSITION, INFORMATION OF INGREDIENTS**

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>PERCENTAGE</th>
<th>CAS NUMBER</th>
<th>OSHA PEL</th>
<th>ACIGH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPTAN</td>
<td>37.4</td>
<td>133-06-2</td>
<td>5 mg/m³</td>
<td>5 mg/m³</td>
</tr>
</tbody>
</table>

**SECTION 3 – HAZARDS IDENTIFICATION SUMMARY**


**EMERGENCY OVERVIEW:** Off – white viscous liquid with no appreciable odor.
- May be harmful if swallowed or inhaled.
- Causes severe eye irritation.
- Avoid breathing dusts or spray mist.
- Avoid contact with eyes, skin or clothing.
- Keep out of reach of children.

**POTENTIAL HEALTH HAZARDS:**
EYE – Severely irritating to the eyes. If not removed promptly, will injure eye tissue, which may result in permanent damage.
Degree of injury will depend on the amount of material that gets into eye and the speed and thoroughness of the first aid treatment.
SKIN – Prolonged or repeated skin contact may cause irritation. Exposure marked by redness and swelling.
INHALATION – Spray mists may be harmful if inhaled. Moderately irritating to respiratory tract.
INGESTATION – May be harmful if swallowed.

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

**ENVIRONMENTAL HAZARDS:** Toxic to fish and other water organisms. Keep out of waterways.

**SECTION 4 – FIRST AID MEASURES**

**IF SWALLOWED:**
- Call a Poison Control Center or doctor immediately.
- Do not induce vomiting.
- Drink promptly a large quantity of milk, egg whites, gelatin solutions, or, if these are not available, large quantities of water.
- Avoid alcohol.

**IF IN EYES:**
- Flush with plenty of water.
- 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.

**IF ON SKIN OR CLOTHING:**
- Take off contaminated clothing.
- Rinse skin immediately with plenty of soap and water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.
NOTE TO PHYSICIAN: Captan has a low mammalian toxicity. It is known to be extremely irritating to soft tissue such as eyes and nasal passages. Probable mucosal damage may contraindicate the use of gastric lavage
ANTIDOTE: None known. Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

FLASHPOINT (METHOD): Will not flash.
FLAMMABLE LIMITS (LFL-UFL): N/A
FIRE AND EXPLOSION HAZARD: Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion.
EXTINGUISHING MEDIA: Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material
FIRE FIGHTING INSTRUCTIONS: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff.
FIRE FIGHTING EQUIPMENT: Self-contained breathing apparatus with full face piece. Full fire fighting turn-out gear (Bunker gear)

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Clean up spills immediately, observing precautions described in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.
SMALL SPILL: Vacuum or sweep up material and place in a container for reuse or disposal.
LARGE SPILL: Vacuum or sweep up material and place in appropriate container for reuse or disposal. After removal, flush contaminated area thoroughly with water. Pick up wash liquid with inert absorbent and place in a chemical waste container for disposal. This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

SECTION 7 – HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!

HANDLING: Use only in a well-ventilated area. Do not reuse this container. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Use only as directed on the label.
STORAGE: Keep pesticide in original container. Keep container tightly closed when not in use. Keep away from food, feed and drinking water. Keep in a well ventilated area and keep away from heat. Keep from freezing.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS (8 HOUR TWA): (Refer to Section 3)
ENGINEERING CONTROLS: Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
PERSONAL PROTECTIVE EQUIPMENT:
EYE PROTECTION – Safety goggles.
CLOTHING – Long – sleeved shirt and long pants, Shoes plus socks, Chemical resistant apron when cleaning equipment, mixing, or loading
GLOVES – Waterproof gloves
RESPIRATOR – When handling in enclosed areas where exposure limits may be exceeded, use a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC – 21C)

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:
1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3. 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.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical description: Off – white liquid

ODOR: No appreciable odor

MOLECULAR WEIGHT (technical): 300.6

MOLECULAR FORMULA (technical): C₉H₈Cl₃NO₂S

BOILING POINT: 220 F

FREEZING POINT: 25 F

BULK DENSITY: 9.25 lb/gal

PH: 6.0

VAPOR PRESSURE: N/A

% VOLATILE: < 1 %

WATER SOLUBILITY: Dispersible

SECTION 10 – STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable, however may decompose if heated.

CONDITIONS TO AVOID: Avoid exposure to excessive heat and high prolonged periods.

INCOMPATIBILITY WITH OTHER MATERIALS: Alkaline and acidic conditions and materials


HAZARDOUS POLYMERIZATION: Product will not undergo polymerization.

SECTION 11 – TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Oral LD₅₀ (rat) – > 5,000 mg/Kg

Dermal LD₅₀ (rat) – > 2,000 mg/Kg

Inhalation LC₅₀ (rat) – > 1.0 mg/L

Eye Irritation (rabbit) – Corrosive

Skin Irritation (rabbit) – Moderate

Sensitization (guinea pig) – Slight

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Acute asthma and/or other chronic pulmonary diseases due to inhalation of vapors or spray mists.

CARCINOGEN STATUS:

OSHA – Not listed

NTP – Not listed

IARC – Not listed

The EPA has classified Captan as a probable human carcinogen due to evidence of intestinal tumors in lab studies and Captan’s chemical similarity to other known carcinogens.

MUTAGENIC DATA: No evidence of mutagenic effects during in vivo or in vitro studies.

ADDITIONAL DATA: Not known to exhibit reproductive or teratogenic effects

SECTION 12 – ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: This pesticide is toxic to fish. Do not apply directly to water. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not clean equipment or dispose of equipment washwaters in a manner that will contaminate water resources.

FISH TOXICITY: (Technical)

96 hour LC₅₀’ Rainbow trout – unknown ug/L

96 hour LC₅₀’ Bluegill – 0.07 ug/L

AVIAN TOXICITY: (Technical)

Oral LD₅₀’ Bobwhite quail – > 2,000 mg/Kg

Oral LD₅₀’ Mallard duck – > 2,000 mg/Kg
BEE TOXICITY:  Non-toxic.

SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE:  Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER:  Refer to product label.

SECTION 14 – TRANSPORT INFORMATION

DOT SHIPPING DESCRIPTION:  Environmentally Hazardous Substance, Liquid, N.O.S., (Captan 37%), 9, UN 3082, PG III, RQ
DOT HAZARD CLASS:  9
UN NUMBER:  UN 3082
DOT PACKING GROUP:  III
DOT PRIMARY/SECONDARY LABEL:  Class 9
DOT PRIMARY/SECONDARY PLACARD:  Class 9
DOT EMERGENCY RESPONSE GUIDE #:  171

SECTION 15 – REGULATORY INFORMATION

FIFRA:  All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act. The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide.

OSHA HAZARD COMMUNICATION STANDARD STATUS:  Regulated.

CERCLA REPORTABLE QUANTITY:  10 pounds

SARA TITLE III STATUS:
302 Extremely Hazardous Substance – NO
311/312 Hazard Categories – Immediate
313 Toxic Chemicals – Yes (Captan)

CALIFORNIA PROP 65 STATUS:  Listed

SECTION 16 – OTHER INFORMATION

DISCLAIMER:  The information presented herein is based on available data from reliable sources and is correct to the best of RedEagle International LLC’s knowledge. REI makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions. To the extent permitted by law, we disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.

REVISED DATE:  June 29, 2011  REVISED FOR:  REDEAGLE INTERNATIONAL, LLC, LAKELAND, FL
REVISED BY:  G.H. GONZALEZ  APPROVED BY:  YINGXUE YU  EPA REG. 85678-13