

# MATERIAL SAFETY DATA SHEET

## SUTERRA LLC

213 SW Columbia, Bend, Oregon U.S.A. 97702-1013  
EMERGENCY PHONE NUMBER: (541) 388-3688

### SECTION I

**TRADE NAME:** PUFFER® CM  
**SYNONYMS:** Codlure, Codlemone  
**REGULATORY LICENSE:** EPA Registration No. 73479-2  
**CHEMICAL FAMILY:** Unsaturated Aliphatic Ester

### SECTION II - COMPONENTS

| PRINCIPAL COMPONENT(S)    | CAS NO.    | CHEMICAL FORMULA                             |
|---------------------------|------------|--|
| E,E-8,10-dodecadien-1-ol  | 33956-49-9 | C <sub>12</sub> H <sub>22</sub> O            |
| Ethanol                   | 64-17-5    | C <sub>2</sub> H <sub>5</sub> OH             |
| 1,1,1,2-Tetrafluoroethane | 811-97-2   | C <sub>2</sub> H <sub>2</sub> F <sub>2</sub> |

### SECTION III - PHYSICAL DATA

|  |  |                                |  |
|--|--|--------------------------------|--|
| <b>BOILING POINT (C°)</b>                    | 78.5°C   | <b>BULK DENSITY</b>            | NA                                       |
| <b>VAPOR PRESSURE (mm Hg)</b>                | 55-65 @20C   | <b>VAPOR DENSITY (AIR = 1)</b> | >1                                       |
| <b>SOLUBILITY IN WATER</b>                   | Low solubility in water<br>20.02 mg/L @22.5°C<br>for the pheromone | <b>MOLECULAR WEIGHT</b>        | N/A                                      |
| <b>SPECIFIC GRAVITY (H<sub>2</sub>O = 1)</b> | 0.81 - 0.85 (liquid)<br>0.98 - 1.02 (aerosol)                      | <b>APPEARANCE AND ODOR</b>     | Clear, slight yellow tint.<br>Waxy odor. |

### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

| FLASH POINT (Method Used) | FLAMMABLE LIMITS (% by Volume in Air) | LEL             | UEL             |
|---------------------------|---------------------------------------|-----------------|-----------------|
| >13°C (Closed Cup)        | LFL = 3.3 UFL = 19                    | Not established | Not established |

**EXTINGUISHING MEDIA:** Dry Chemical, Foam, Carbon Dioxide (CO<sub>2</sub>)

**SPECIAL FIRE FIGHTING PROCEDURES:** Evacuate area of all unnecessary personnel. Use standard fire fighting procedures. Full protective equipment should be worn.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Carbon oxides formed when burned. Heat will cause pressurized containers to explode. Can be cooled with water fogging nozzles.

## SECTION V - HEALTH HAZARD DATA

### TOXICITY DATA

Based on individual components of the formulation the following acute toxicity for the product was established:

|                                   |                       |
|-----------------------------------|-----------------------|
| LD <sub>50</sub> Oral, Rat:       | >5000 mg/kg           |
| LD <sub>50</sub> Dermal, Rabbit:  | >2020 mg/kg           |
| LC <sub>50</sub> Inhalation, Rat: | >5.00 mg/L            |
| Eye Irritation, Rabbit:           | Moderate to severe.   |
| Skin Irritation, Rabbit:          | Moderately irritating |

### EFFECTS OF OVEREXPOSURE

**EYE CONTACT:** Moderate to severe. Avoid contact with eyes. Propellant can cause freeze like burns when misused.

**SKIN CONTACT:** Moderately irritating. Avoid contact with skin. Propellant can cause freeze like burns when misused.

**INHALATION:** Avoid breathing vapors.

**INGESTION:** Harmful if ingested. Avoid swallowing product.

**CHRONIC:** Long-term studies on the concentrated active ingredients have not been done, however, no adverse effects expected from normal use.

### EMERGENCY AND FIRST AID PROCEDURES

**EYE CONTACT:** Flush with plenty of water for at least 15 minutes. Call a physician.

**SKIN CONTACT:** Wash with soap and water. If irritation develops, call a physician.

**INHALATION:** Remove to fresh air. If breathing becomes labored, give oxygen. If illness or adverse symptoms develop, call a physician.

**INGESTION:** Administer water and call a physician or poison control center immediately. Do not induce vomiting.

**RECOMMENDED EXPOSURE LIMITS:** None established.

**LISTED AS CARCINOGEN BY NTP, IARC, OR OSHA:** No

**OTHER HEALTH EFFECTS:** No known adverse effects expected.

**HEALTH HAZARD CATEGORIES:** EPA Toxicity Category: III - CAUTION

### SECTION VI - REACTIVITY DATA

**STABILITY:** Stable

**INCOMPATIBILITY:** Strong oxidizing agents and oxygen. Heat or flame.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon oxides formed when burned. Hydrocarbon fumes and smoke.

**HAZARDOUS POLYMERIZATION:** Will not occur

### SECTION VII - SPILL OR LEAK PROCEDURE

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**  
Since the product is in individual steel pressurized containers they may be picked up and reused. If the containers are dented they may be returned. If the container is punctured the resulting release may be washed up with detergent and water.

**ENVIRONMENTAL HAZARDS / WASTE DISPOSAL:**  
The containers can be offered for recycling in aerosol recycling centers. At present, there are only a few such centers in the country. Before offering for recycling, empty the can by using the product according to the label (Do Not Puncture). If the recycling is not available, wrap the container in several layers of newspaper and discard in the trash.

**SECTION VIII - SPECIAL PROTECTION INFORMATION**

RESPIRATORY PROTECTION: Not required under normal use conditions.  
PROTECTIVE GLOVES: Not required under normal use conditions.  
EYE PROTECTION: Not required under normal use conditions.  
OTHER PROTECTIVE EQUIPMENT: Not required under normal use conditions.  
VENTILATION: Not applicable.

**SECTION IX - SPECIAL PRECAUTIONS**

PRECAUTIONS TO BE TAKEN  
IN HANDLING AND STORAGE, ETC:  
Avoid skin and eye contact. Avoid breathing vapors. Store in cool place until used. Do not contaminate water, food, or feed by storage.

**SECTION X - REGULATORY INFORMATION**

Suterra LLC is unaware of any local, state or federal regulations which define the active ingredient as hazardous.

While this information and recommendations set forth are believed to be accurate as of the date hereof, Suterra LLC makes no warranty with respect hereto and disclaims all liability from reliance thereon.

Date: 11/03/03

Supersedes: None

Contact: Richard W. Fresh, Regulatory Affairs, Suterra LLC