

# MATERIAL SAFETY DATA SHEET

## SUTERRA LLC

213 SW Columbia, Bend, Oregon USA 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			
BOILING POINT (°C)	78.5 °C	BULK DENSITY	NA
VAPOR PRESSURE (mm Hg)	55-65 @20C	VAPOR DENSITY (AIR = 1)	> 1
SOLUBILITY IN WATER	Low solubility in water. 20.02 mg/L @ 22.5°C for the pheromone	MOLECULAR WEIGHT	N/A
SPECIFIC GRAVITY (H <sub>2</sub> O = 1)	0.81 – 0.85 (liquid) 0.98 – 1.02 (aerosol)	APPEARANCE AND ODOR	Clear, slight yellow tint. 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, Rabbits:	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 ingredient 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 use conditions.

PROTECTIVE GLOVES: Not required under use conditions.

EYE PROTECTION: Not required under use conditions.

OTHER PROTECTIVE EQUIPMENT: Not required under 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: New

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