

MATERIAL SAFETY DATA SHEET

SUTERRA LLC

20950 NE Talus Place, Bend, Oregon USA 97701
EMERGENCY PHONE NUMBER: (541) 388-3688

SECTION I			
TRADE NAME:		PUFFER® APM	
SYNONYMS:		Artichoke Plume Moth Pheromone	
REGULATORY LICENSE:		EPA Registration No. 56336-45	
CHEMICAL FAMILY:		Unsaturated Aliphatic Ester	
SECTION II - COMPONENTS			
PRINCIPAL COMPONENT(S)		CAS NO.	CHEMICAL FORMULA
Z-11-Hexadecenal		53939-28-9	C ₁₆ H ₃₀ O
Heptane		142-82-5	C ₇ H ₁₆
1,1,1,2-Tetrafluoroethane		811-97-2	C ₂ H ₂ F ₂
SECTION III - PHYSICAL DATA			
BOILING POINT (°C)	NA	BULK DENSITY	NA
VAPOR PRESSURE (mm Hg)	NA	VAPOR DENSITY (AIR = 1)	> 1
SOLUBILITY IN WATER	Low solubility in water.	MOLECULAR WEIGHT	N/A
SPECIFIC GRAVITY (H ₂ O = 1)	0.97 aerosol	APPEARANCE AND ODOR	Clear, slight yellow tint. fruity odor.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA			
FLASH POINT (Method Used)	FLAMMABLE LIMITS (% by Volume in Air)	LEL	UEL
	15-45cm with no flash back	Not established	Not established
EXTINGUISHING MEDIA:	Dry Chemical, Foam, Carbon Dioxide (CO ₂)		
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 ₅₀ , Oral, Rat:	> 5000 mg/kg		
LD ₅₀ , Dermal, Rabbit:	> 2020 mg/kg		
LC ₅₀ , Inhalation, Rat:	> 5.00 mg/L		
Eye Irritation, Rabbit:	Moderate to severe.		
Skin Irritation, Rabbits:	Moderately irritating.		
EFFECTS OF OVEREXPOSURE			
EYE CONTACT:	Moderate. 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 if irritation persists.
SKIN CONTACT:	Wash with soap and water. If irritation develops, call a physician.
INHALATION:	Remove to fresh air. If breathing becomes labored call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth. Call a PCC or doctor for further treatment advice.
INGESTION:	Call a PCC or doctor immediately for treatment advice. Have person sip 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.
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	
<p>PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE, ETC.</p> <p>Avoid skin and eye contact. Avoid breathing vapors. Store in cool place until used. Do not contaminate water, food or feed by storage.</p>	
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: 09/27/2010

Supersedes: 04/04/05

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