

# MATERIAL SAFETY DATA SHEET

## SUTERRA LLC

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

SECTION I			
TRADE NAME:	CHECKMATE® APM-F		
SYNONYMS:	Artichoke Plume Moth Pheromone		
REGULATORY LICENSE:	EPA Registration No. 56336-39		
CHEMICAL FAMILY:	Not applicable. The product consists of polymeric micro-beads containing the artichoke plume moth pheromone. The beads are held in an aqueous suspension.		
SECTION II - COMPONENTS			
PRINCIPAL COMPONENT(S)	CAS NO.	CHEMICAL FORMULA	
Z-11-Hexadecenal	53939-28-9	C <sub>16</sub> H <sub>30</sub> O	
Water	7732-18-5	H <sub>2</sub> O	
SECTION III - PHYSICAL DATA			
BOILING POINT (°C)	~100°C for water component.	BULK DENSITY	Not applicable for formulation, liquid.
VAPOR PRESSURE (mm Hg)	Not established for pheromone.	VAPOR DENSITY (AIR = 1)	Not applicable for formulation. >1 for pheromone.
SOLUBILITY IN WATER	Low solubility for pheromone.	MOLECULAR WEIGHT	NA
SPECIFIC GRAVITY (H <sub>2</sub> O = 1)	0.97	APPEARANCE AND ODOR	Solid micro-beads containing pheromone in an aqueous suspension. Has a faint fruity, oily odor.

<b>SECTION IV - FIRE AND EXPLOSION HAZARD DATA</b>			
FLASH POINT (Method Used)	FLAMMABLE LIMITS (% by Volume in Air)	LEL	UEL
Not applicable ~70% water.	Not applicable.	Not applicable.	Not applicable.
EXTINGUISHING MEDIA: Not applicable ~70% water.			
SPECIAL FIRE FIGHTING PROCEDURES: Not applicable.			
UNUSUAL FIRE AND EXPLOSION HAZARDS: None.			
<b>SECTION V - HEALTH HAZARD DATA</b>			
<b>TOXICITY DATA</b>			
<p>The toxicity of the product is determined by the toxicity of lepidopteran pheromones in general.</p> <p>LD<sub>50</sub>, Oral, Rat: &gt; 5050 mg/kg  LD<sub>50</sub>, Dermal, Rabbit: &gt; 5050 mg/kg  LD<sub>50</sub>, Intratracheal, Rat: &gt; 150 mg/animals; equivalent to inhalation LC<sub>50</sub> &gt; 5 mg/L  Eye Irritation, Rabbit: Mildly irritating in unwashed eye.  Minimally irritating in washed eye.  Dermal Irritation, Rabbit: Moderate irritant.  Ames Mutation Assay: Non-mutagenic with and without microsomal activation.</p>			
<b>EFFECTS OF OVEREXPOSURE</b>			
EYE CONTACT:	May cause transient irritation.		
SKIN CONTACT:	May cause transient irritation.		
INHALATION:	Not a likely route of exposure due to product form.		
INGESTION:	May cause upset stomach in large doses.		
CHRONIC:	Long-term studies on the concentrated active ingredients have not been done, however, no adverse effects expected from formulation or active ingredients.		

**EMERGENCY AND FIRST AID PROCEDURES**

**EYE CONTACT:** Flush eyes with water. If irritation develops, call a physician.

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

**INHALATION:** Not a likely route of exposure due to product form. However, if exposure occurs remove victim to fresh air, give CPR if not breathing. Get medical attention.

**INGESTION:** If symptoms appear get medical attention. Give symptomatic and supportive care.

**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.

**HAZARDOUS DECOMPOSITION PRODUCTS:** In large fires where water boils off carbon oxides and urea combustion products may be formed.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**SECTION VII - SPILL OR LEAK PROCEDURE**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**

Contain spill by diking. Use absorbent and shovel into a clean container.

**ENVIRONMENTAL HAZARDS/WASTE DISPOSAL:** Dispose at an approved waste disposal facility. Do not contaminate water sources.

**SECTION VIII - SPECIAL PROTECTION INFORMATION**

RESPIRATORY PROTECTION:	None required under normal use conditions.
PROTECTIVE GLOVES:	Applicators and other handlers must wear waterproof gloves.
EYE PROTECTION:	None required under normal use conditions.
OTHER PROTECTIVE EQUIPMENT:	Applicators and other handlers must wear cover-alls, short-sleeved shirt, shorts and shoes plus socks.
VENTILATION:	None required under normal use conditions.

**SECTION IX - SPECIAL PRECAUTIONS**

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE, ETC.
Do not contaminate water, food, or feed. Store in a cool place. Protect from freezing.

**SECTION X - REGULATORY INFORMATION**

Suterra LLC is unaware of any local, state or federal regulations which define the active ingredient as hazardous.
As of the preparation date, this product did not contain a chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.
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: 09/23/2010  
Supersedes: 04/27/05  
Contact: Richard W. Fresh, Regulatory Affairs, Suterra LLC