



SAFETY DATA SHEET

SECTION I – IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

TRADE NAME: CheckMate® VMB-F

SYNONYMS: Vine mealybug flowable.

USE: CheckMate® VMB-F is a sprayable aqueous suspension of microbead dispensers each encapsulating the synthesized sex pheromone of the Vine Mealybug (*Planococcus ficus*). The product is used in agriculture to control this pest insect via mating disruption.

COMPANY IDENTIFICATION: Suterra LLC
20950 NE Talus Place
Bend, Oregon 97701
U.S.A.
TEL: (541) 388-3688
FAX: (541) 388-3705

EMERGENCY TELEPHONE NUMBERS:

LEAK, FIRE, SPILL, OR ACCIDENT: (800) 424-9300 (CHEMTREC – U.S.A. & CANADA)
(703) 527-3887 (CHEMTREC – Collect - All Other Countries)

MEDICAL: Call Doctor, Poison Control Center or (541) 388-3688

SECTION II – HAZARDS IDENTIFICATION

The following determinations have been made according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals:

GHS Signal Word: WARNING

GHS Symbols:



GHS Hazard Statements:

Harmful if inhaled
 Causes skin irritation
 Causes eye irritation

GHS Precautionary Statements:

Avoid breathing vapor. Use only outdoors or in a well ventilated area.
 Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.
 Use protective gloves, protective garments and eye protection to prevent excessive skin or eye contact when handling.

GHS Response Statements

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a Poison Control Center or doctor for advice if you feel unwell. Specific treatment: Refer to Section IV of this SDS.
 If on skin or clothing: Take off contaminated clothing and wash before reuse. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for advice if you feel unwell, or if skin irritation occurs.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention.

SECTION III - COMPOSITION

PRINCIPAL COMPONENT(S)	CAS NO.	CHEMICAL FORMULA	APPROXIMATE W/W%
5-Methyl-2-(methylethenyl)-4-hexenyl 3-methyl-2-butenolate (Common name: Lavandulyl senecioate)	23960-07-8	C ₁₅ H ₂₄ O ₂	20%
Water	7732-18-5	H ₂ O	>75

SECTION IV – FIRST AID MEASURES

EYE CONTACT:	If contact with eyes occurs, hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses if worn after the first five minutes and continue rinsing. Call a doctor or Poison Control Center for advice.
SKIN CONTACT:	If significant contact occurs, take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a doctor or Poison Control Center for advice.
INHALATION:	If significant exposure occurs, 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 doctor or Poison Control Center for advice.
INGESTION:	Call a doctor or Poison Control Center immediately for treatment advice. Have person sip a glass of 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.

SECTION V – FIREFIGHTING MEASURES

FLASH POINT (Method Used)	FLAMMABLE LIMITS (% by Volume in Air)	LEL	UEL
Product is non-flammable. For active ingredient pheromone: 129 °C (closed cup)	Not established.	Not established.	Not established.

EXTINGUISHING MEDIA:	Water spray, dry chemical, foam, carbon dioxide (CO ₂)
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Under confined conditions, a vapor of this material in the air may cause a rapid combustion if ignited by exposure to heat, sparks or open flame.
ADVICE FOR FIREFIGHTERS:	Evacuate area of all unnecessary personnel. Use standard fire fighting procedures. Carbon oxides formed when burned.
SECTION VI – ACCIDENTAL RELEASE MEASURES	
Wear approved protective gloves and eye protection. Contain spill by diking. Use absorbent and shovel into a clean container. Protect from ignition. Keep out of water sources or sewers.	
SECTION VII – HANDLING AND STORAGE	
Store in a cool, well ventilated area until used. Protect from freezing. Protect from ignition. Wear protective equipment described in Section VIII. Avoid skin and eye contact. Avoid breathing vapors. Wash hands after handling. Do not allow product to contaminate water sources, food or feed. Provide means of controlling spills.	
SECTION VIII – EXPOSURE CONTROLS / PERSONAL PROTECTION	
EXPOSURE LIMIT VALUES	
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
EFFECTS OF OVEREXPOSURE	
EYE CONTACT:	Minimally irritating. Avoid contact with eyes.
SKIN CONTACT:	Moderately irritating. Avoid contact with skin.
INHALATION:	Not established. May cause transient irritation. Avoid breathing pheromone vapors.
INGESTION:	Not established. May cause upset stomach in large doses. Avoid ingesting pheromone.
CHRONIC:	Long-term studies have not been completed. However, no adverse effects are expected.
EXPOSURE CONTROLS	
RESPIRATORY PROTECTION:	Not generally required under normal use conditions. If heated and/or pheromone becomes aerosolized, use NIOSH/MSHA approved air-purifying respirator with organic vapor sorbent. Use NIOSH/MSHA approved respiratory protection, such as air-supplied mask, for entry into confined spaces or other poorly ventilated areas.
PROTECTIVE GLOVES:	Use protective gloves.
EYE PROTECTION:	Use safety glasses with side shields.
SKIN PROTECTION:	Use protective garments to prevent excessive skin contact.

VENTILATION:	Use outdoors. If handled indoors, provide adequate ventilation.
OTHER PROTECTIVE EQUIPMENT:	Not generally required under normal use conditions.
NOTE:	Personal protection information provided in this Section is based upon label information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.
SECTION IX –PHYSICAL AND CHEMICAL PROPERTIES	
APPEARANCE	Solid particles in liquid suspension.
ODOR	Slight burnt, oily odor for pheromone active ingredient
MOLECULAR WEIGHT	~ 236 for pheromone active ingredient
pH	Not established for end-use formulation.
SOLUBILITY IN WATER	Not established for end-use formulation. 8 mg/L for pheromone active ingredient
BOILING POINT	Not established for end-use formulation. 106°C @ 0.8 mmHg for pheromone active ingredient.
MELTING POINT	Not established. Active ingredient pheromone is a liquid at room temperature
FLASH POINT	Not established for non-flammable end-use product. 129 °C for pheromone active ingredient. (Closed cup)
FLAMMABILITY	Not established. End-use product is not flammable
SPECIFIC GRAVITY (H ₂ O = 1)	0.98 g/cm ³ for end-use formulation. 0.913 @ 20°C for pheromone active ingredient.
VAPOR PRESSURE	Not established for end-use formulation. 12.75 mmHg @ 20°C for pheromone active ingredient
EXPLOSIVE PROPERTIES	Not established. Does not contain explosive ingredients.
OXIDIZING PROPERTIES	Not established.
SECTION X – STABILITY AND REACTIVITY DATA	
STABILITY:	The product is stable. No dangerous reactions are expected. Pheromone attractant is sensitive to heat and light.
INCOMPATIBILITY:	Acids, peroxides and other strong oxidizing agents. Material is stable to heat and light as packaged. Material will degrade in the presence of strong oxidizers and oxygen.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon oxides formed when burned.
HAZARDOUS POLYMERIZATION:	Will not occur.

SECTION XI – TOXICOLOGICAL INFORMATION

Due to the formulation type, no studies have been performed on the end-use product. Information on the pheromone active ingredient is reported here:

Vine Mealybug (VMB) Pheromone:

LD ₅₀ , Oral, Rat:	> 5,000 mg/kg
LD ₅₀ , Dermal, Rat:	> 5,000 mg/kg
LC ₅₀ , Inhalation, Rat:	> 5.21 mg/L
Eye Irritation, Rabbit:	Minimally irritating
Skin Irritation, Rabbit:	Moderately irritating
Skin Sensitization, Guinea Pig:	Negative, not a sensitizer
Mutagenicity (in vivo & in vitro):	All test results negative
Carcinogenicity:	No data found
Reproductive toxicity:	No data found
Target organ toxicity:	No data found

SECTION XII – ECOLOGICAL INFORMATION

Due to the formulation type, no studies have been performed on the end-use product. Information on the pheromone active ingredient is reported here:

Vine Mealybug (VMB) Pheromone:

EC ₅₀ , Freshwater fish, 96 hour:	> 100 mg/L
EC ₅₀ , Aquatic Invertebrate, 48 hour:	8.9 mg/L
EC ₅₀ , Algal Inhibition, 96 hour:	53.3 mg/L

SECTION XIII – DISPOSAL CONSIDERATIONS

ENVIRONMENTAL HAZARDS/ WASTE DISPOSAL: Wastes resulting from the use of this product may be disposed of at an approved waste disposal facility. Insure conformity with all applicable provisions. Incinerate or otherwise manage at a permitted waste management facility. Dispose of in accordance with local, state, and federal regulations. Do not flush into the sewer.

USED CONTAINER DISPOSAL: Plastic container: Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill container ¼ full with water and recap. Shake 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

SECTION XIV – TRANSPORT INFORMATION

TRANSPORT BY GROUND:

Description:	Aqueous suspension of microbead dispensers each encapsulating the synthesized sex pheromone of the Vine Mealybug.
Hazard Class:	DOT – Not classified as dangerous.
Identification Numbers:	Unclassified.
Packing Group:	Not applicable.
Flashpoint:	Not established for non-flammable end-use product. 129 °C for pheromone active ingredient.

TRANSPORT BY SEA:

Description: Aqueous suspension of microbead dispensers each encapsulating the synthesized sex pheromone of the Vine Mealybug.
Hazard Class: IMDG – Not classified as dangerous.
Identification Numbers: Unclassified.
Packing Group: Not applicable.
Flashpoint: Not established for formulation. [129 °C (Closed cup) for active ingredient pheromone]

TRANSPORT BY AIR:

Description: Aqueous suspension of microbead dispensers each encapsulating the synthesized sex pheromone of the Vine Mealybug.
Hazard Class: IATA – Not classified as dangerous.
Identification Numbers: Unclassified.
Hazard Label(s): None required.
Packing Group: Not applicable.
Flashpoint: Not established for formulation. [129 °C (Closed cup) for active ingredient pheromone]

SECTION XV – REGULATORY INFORMATION

REGULATORY LICENSE: This formulation is registered for sale in the United States. As registered by U.S. EPA, this formulation is subject to certain labeling requirements under Federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDSs), and for workplace labels of non-pesticide chemicals. The hazard information on the pesticide label is reproduced below. The pesticide label also includes other important information, including the Directions for Use.

Caution: Harmful if swallowed or absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing vapor. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash before reuse.

U.S. EPA Registration Number: 56336-67
Categorized under U.S. EPA Toxicity Health Category III - Caution

SECTION XVI – OTHER INFORMATION

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.

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