



SAFETY DATA SHEET

SECTION I – IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

TRADE NAME:	CheckMate® SF CheckMate® SF Dispenser CheckMate® SF-XL
SYNONYMS:	Combination OFM/PTB mating disruption dispensers
USE:	SF dispensers are hand-applied products that emit the pheromone of both the oriental fruit moth (<i>Grapholita molesta</i>) and the peach twig borer (<i>Anarsia lineatella</i>). The products are used in agriculture to control populations of these pests 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 eye irritation
 Causes skin 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 and protective garments to prevent excessive skin 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.

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.

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.

SECTION III - COMPOSITION

PRINCIPAL COMPONENT(S)	CAS NO.	CHEMICAL FORMULA	APPROXIMATE W/W %
(Z)-8-dodecen-1-yl acetate	28079-04-1	C ₁₄ H ₂₆ O ₂	8-12
(E)-8-dodecen-1-yl acetate	38363-29-0	C ₁₄ H ₂₆ O ₂	<1
(Z)-8-dodecen-1-ol	40642-40-8	C ₁₂ H ₂₄ O	<1
(E)-5-decen-1-yl acetate	38421-90-8	C ₁₂ H ₂₂ O ₂	8
(E)-5-decen-1-ol	56578-18-8	C ₁₀ H ₂₀ O	2

Note: SF dispensers utilize inert polymer ingredients that are commonly used throughout many industries and products. Exact identities and concentrations in the end-use dispensers are not disclosed here for trade secret reasons. The properties and effects of these common polymers have been evaluated as part of the Hazard Classification of the SF hand-applied dispenser products.

SECTION IV – FIRST AID MEASURES

EYE CONTACT:	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:	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:	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
Not established for formulation. 230°F for OFM pheromone blend. 199°F (93°C) for PTB pheromone blend.	Not established.	Not established.	Not established.

EXTINGUISHING MEDIA:	Dry Chemical, Foam, Carbon Dioxide (CO ₂)
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Carbon oxides formed when burned.
ADVICE FOR FIREFIGHTERS:	Evacuate area of all unnecessary personnel. Use standard fire fighting procedures.
SECTION VI – ACCIDENTAL RELEASE MEASURES	
Wear protective gloves, clothing and eye protection. Large spills can be swept up. 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	
Wear protective equipment described in Section VIII. Avoid skin and eye contact. Avoid breathing vapors. Store in cool, well ventilated area. Protect from ignition. Wash hands after handling. Do not allow product to contaminate water sources, food or feed.	
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:	Pheromone is mildly irritating. Avoid contact with eyes when in contact with dispenser membrane.
SKIN CONTACT:	Pheromone is moderately irritating. Avoid contact of skin with dispenser membrane.
INHALATION:	May cause transient irritation. Avoid breathing vapors when in confined areas.
INGESTION:	Due to product form ingestion is not considered likely.
CHRONIC:	Long-term studies have not been done on the concentrated active ingredient, however, no adverse effects 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 chemical resistant gloves when handling dispensers.
EYE PROTECTION:	Wear protective eyewear.
OTHER PROTECTIVE EQUIPMENT:	Wear protective garments to prevent excessive skin contact.

VENTILATION:	Use adequate ventilation.
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	Plastic hand-applied dispenser.
ODOR	Mild, herbaceous, fruity odor.
MOLECULAR WEIGHT	Not applicable to end-use dispenser. 636 for OFM pheromone blend. 354 for PTB pheromone blend
pH	Not established.
SOLUBILITY IN WATER	Not applicable to end-use dispenser. Low water solubility for OFM and PTB pheromone blends.
BOILING POINT	Not applicable to end-use dispenser. 120-125°C @ 3mmHg for OFM pheromone blend. 60.3°C @ 0.71 mmHg for PTB pheromone blend.
MELTING POINT	Not applicable for end-use dispenser. Both OFM and PTB pheromone blends are liquids at room temperature.
FLASH POINT	Not established for end-use dispenser. 230°F for OFM pheromone blend. 199°F (93°C) for PTB pheromone blend.
FLAMMABILITY	Not established.
SPECIFIC GRAVITY (H ₂ O = 1)	Not established for end-use dispenser. 0.88 ± 0.01 for OFM pheromone active ingredient. 0.88 ± 0.01 for PTB pheromone active ingredient.
EXPLOSIVE PROPERTIES	Not established
OXIDIZING PROPERTIES	Not established
SECTION X – STABILITY AND REACTIVITY DATA	
STABILITY:	The product is stable. No dangerous reactions are expected from the use of the formulation as labeled. Pheromone is sensitive to heat and light.
INCOMPATIBILITY:	Pheromone to strong oxidizing agents.
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 about the pheromone active ingredients is reported here: <u>Oriental Fruit Moth (OFM) Pheromone Blend:</u> LD₅₀, Oral, Rat: > 5050 mg/kg LD₅₀, Dermal, Rabbit: > 5050 mg/kg LD₅₀, Intratracheal, Rat: > 2 mg/L Eye Irritation, Rabbit: Mildly irritating. Skin Irritation, Rabbit: Moderately irritating. Ames Mutation Assay: Negative.	

Peach Twig Borer (PTB) Pheromone Blend:

LD ₅₀ , Oral, Rat:	> 5050 mg/kg.
LD ₅₀ , Dermal, Rabbit:	> 2050 mg/kg.
LD ₅₀ , Intratracheal, Rat:	> 2 mg/L.
Eye Irritation, Rabbit:	Slightly irritating.
Skin Irritation, Rabbit:	Moderately irritating.
Ames Mutation Assay:	Non-mutagenic and without microsomal activation.
Sensitization, Guinea Pig:	Negative.

SECTION XII – ECOLOGICAL INFORMATION

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

Oriental Fruit Moth (OFM) Pheromone Blend:

Acute Avian LD ₅₀ Bobwhite Quail:	> 2050 mg/kg
Acute Fish 96 Hour LC ₅₀ Rainbow Trout:	> 0.99 mg/L
Aquatic Invertebrate 48 Hour EC ₅₀ <i>Daphnia</i>	> 100 mg/L

Peach Twig Borer (PTB) Pheromone Blend:

Acute Avian LD ₅₀ Bobwhite Quail:	> 2050 mg/kg.
Acute Fish 96 Hour LC ₅₀ Rainbow Trout:	> 2.2 mg/L.
Aquatic Invertebrate 48 Hour EC ₅₀ <i>Daphnia</i>	= 1.9 mg/L.

SECTION XIII – DISPOSAL CONSIDERATIONS

ENVIRONMENTAL HAZARDS/ WASTE DISPOSAL:

DO NOT contaminate water, food, or feed by storage and disposal. Used dispensers should be wrapped in newspaper, placed in garbage bags and discarded. Do not reuse containers. Discard in trash. Dispose of in accordance with local, state, and federal regulations.

USED DISPENSER AND CONTAINER DISPOSAL:

Used dispensers should be wrapped in newspaper, place in garbage bag and discarded in trash. Nonrefillable container. Do not reuse or refill containers.
Plastic containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.
Bag/Cardboard box: Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

SECTION XIV – TRANSPORT INFORMATION

TRANSPORT BY GROUND:

Description:	Plastic hand-applied pheromone dispenser.
Hazard Class:	Not applicable – Not classified as dangerous.
Identification Numbers:	Unclassified.
Packing Group:	Not applicable.
Flashpoint:	Not established for end-use dispenser. 230°F for OFM pheromone active ingredient. 199°F (93°C) for PTB pheromone blend

TRANSPORT BY SEA:

Description: Plastic hand-applied pheromone dispenser.
Hazard Class: IMDG – Not classified as dangerous.
Identification Numbers: Unclassified.
Packing Group: Not applicable.
Flashpoint: Not established for end-use dispenser. 230°F for OFM pheromone active ingredient.
199°F (93°C) for PTB pheromone blend

TRANSPORT BY AIR:

Description: Plastic hand-applied pheromone dispenser.
Hazard Class: Not applicable – Not classified as dangerous.
Identification Numbers: Unclassified.
Packing Group: Not applicable.
Flashpoint: Not established for end-use dispenser. 230°F for OFM pheromone active ingredient.
199°F (93°C) for PTB pheromone blend.

SECTION XV – REGULATORY INFORMATION

REGULATORY LICENSE: This chemical is a pesticide product registered by the U.S. EPA and 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 required on the pesticide label is reproduced below. The pesticide label also includes other important information, including the Directions for Use.

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

CheckMate SF Dispenser and CheckMate SF-XL are registered with the U.S. EPA under EPA Reg. Nos. 56336-27 and 56336-63, respectively. These products are categorized under U.S. EPA Toxicity Health Hazard Category III – CAUTION. Selected products are also registered for sale in Spain: CheckMate SF; Greece and Italy: CheckMate SF-XL.

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.

Version Date: 05/12/2015

Supersedes: 10/10/2013

Preparer: T. Tipton