



SAFETY DATA SHEET

SECTION I – IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

TRADE NAME: CheckMate® CM-F

SYNONYMS: Codlure, Codlemone flowable

USE: CheckMate® CM-F is a sprayable aqueous suspension of microbead dispensers each encapsulating the synthesized sex pheromone of the codling moth (*Cydia pomonella*). The product is used in agriculture to control populations of this pest 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 %
E,E,-8,10-Dodecadien-1-ol (Codlemone)	33956-49-9	C ₁₂ H ₂₂ O	15
Methyl laurate	111-82-0	C ₁₃ H ₂₆ O ₂	4
Water	7732-18-5	H ₂ O	>75

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.
IF SWALLOWED:	Call a Poison Control Center or doctor 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. 142.5 °C for CM pheromone active ingredient	Not established.	Not established.	Not established.
EXTINGUISHING MEDIA: Not applicable. Formulation is > 75% water. If water boils off use the following: Dry Chemical, Foam, Carbon Dioxide (CO ₂)			
UNUSUAL FIRE AND EXPLOSION HAZARDS: None			
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 protective gloves, clothing 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:	Pheromone is mildly irritating. Avoid contact with eyes.		
SKIN CONTACT:	Pheromone is moderately irritating. Avoid contact with skin.		
INHALATION:	May cause transient irritation. Avoid breathing vapors when in confined areas.		
INGESTION:	Due to product form ingestion is not considered likely. May cause upset stomach in large doses. Avoid ingesting product.		
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 protective gloves.
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	Solid microcapsules containing pheromone in aqueous suspension
ODOR	Waxy, fatty odor.
MOLECULAR WEIGHT	Not established for formulation. 182 for CM pheromone active ingredient.
pH	~6.0-7.0 for formulation.
SOLUBILITY IN WATER	Not established for formulation. Formulation is >75% water. 20 mg/L @ 22.5°C for CM pheromone active ingredient.
BOILING POINT	Not established for formulation. 70°C for CM pheromone active ingredient.
MELTING POINT	Not established for formulation. ~28.5°C for CM pheromone active ingredient.
FLASH POINT	Not established for formulation. Formulation is a non-flammable solid in an aqueous suspension with no explosive ingredients and contains > 75% water. 142.5 °C for CM pheromone active ingredient
FLAMMABILITY	Not established.
SPECIFIC GRAVITY (H ₂ O = 1)	0.97 for formulation. 0.86 @ 25°C for CM 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 known or expected from the use of the formulation as labeled. Pheromone is sensitive to heat and light.
INCOMPATIBILITY:	None. Formulation is stable to heat and UV-light as packaged. Formulation will degrade in the presence of strong oxidizing agents and oxygen.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon oxides formed when burned.
HAZARDOUS POLYMERIZATION:	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 ingredient is reported here:

Codling Moth (CM) Pheromone:

LD ₅₀ , Oral, Rat:	> 5050 mg/kg
LD ₅₀ , Dermal, Rabbit:	> 2020 mg/kg
LD ₅₀ , Intratracheal, Rat:	> 2 mg/L
Eye Irritation, Rabbit:	Mildly irritating
Skin Irritation, Rabbit:	Moderately irritating
Ames Mutation Assay:	Negative
Sensitization, Guinea Pig:	Negative
Mutagenicity (in vivo & in vitro):	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 about the pheromone active ingredients is reported here:

Codling Moth (CM) Pheromone:

Acute Avian LD ₅₀ Bobwhite Quail:	> 2050 mg/kg
Acute Fish 96 Hour LC ₅₀ Rainbow Trout:	> 5.87 mg/L (Above limit of water solubility)
Aquatic Invertebrate 48 Hour EC ₅₀ <i>Daphnia</i>	> 8.6 mg/L
Honey Bee Inhalation	> 3.17 mg/L
Green Lacewing Inhalation	> 3.17 mg/L

SECTION XIII – DISPOSAL CONSIDERATIONS

ENVIRONMENTAL HAZARDS/ WASTE DISPOSAL:

DO NOT contaminate water, food, or feed by storage and disposal.

For terrestrial uses. DO NOT apply directly to water, or to areas where surface water is present, or to intertidal areas below the high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water when disposing of equipment washwater. Dispose of in accordance with local, state, and federal regulations.

CONTAINER DISPOSAL:

Nonrefillable container. Do not reuse or refill this container. **Plastic Containers:** 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 1/4 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 or 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: Solid microcapsules containing pheromone in an aqueous suspension.
Hazard Class: Not applicable – Not classified as dangerous.
Identification Numbers: Unclassified.
Packing Group: Not applicable.
Flashpoint: Not established for end-use formulation. Formulation is > 75% water.
142.5 °C for CM pheromone active ingredient

TRANSPORT BY SEA:

Description: Solid microcapsules containing pheromone in an aqueous suspension
Hazard Class: IMDG – Not classified as dangerous.
Identification Numbers: Unclassified.
Packing Group: Not applicable.
Flashpoint: Not established for end-use formulation. Formulation is > 75% water.
142.5 °C for CM pheromone active ingredient

TRANSPORT BY AIR:

Description: Solid microcapsules containing pheromone in an aqueous suspension.
Hazard Class: Not applicable – Not classified as dangerous.
Identification Numbers: Unclassified.
Packing Group: Not applicable.
Flashpoint: Not established for end-use formulation. Formulation is > 75% water.
142.5 °C for CM pheromone active ingredient.

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 swallowed, inhaled, or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse. Wear chemical resistant gloves and protective eyewear.

Personal Protective Equipment (PPE): Long-sleeved shirt and long pants, waterproof gloves, and shoes plus socks. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

U.S. EPA Registration Number: 56336-37. This product is categorized under U.S. EPA Toxicity Health Hazard Category III – CAUTION

This crop protection product is also registered for sale in: Argentina, Chile, Italy, South Africa, Spain and Uruguay.

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.