

Safety Data Sheet

1. Identification of Product and Company

Product Identifier:

ISOMATE® CM/OFM Mist Plus
U.S. EPA Registration Number: 53575-50

Identification of the substance: Aerosol Codling Moth and Oriental Fruit Moth pheromone product

Relevant Identified Uses of the Substance or Mixture:

For Agricultural Use Only. This product contains the mixture of (E,E)-8,10-Dodecadien-1-ol, Z-8-Dodecen-1-yl Acetate, E-8-Dodecen-1-yl Acetate, Z-8-Dodecen-1-ol and stabilizers. This product contains behavior modifying biochemicals (pheromones) that disrupts mating of codling moth (CM) and Oriental Fruit Moth that is to be used as directed on its approved U.S. EPA pesticide label.

Important Notice:

This product contains a mixture. This SDS applies only in case the aerosol container breaks and the chemicals leak. The product is safe for use. Due to the type of container (aerosol canister) the chances of a large spill or leak are unlikely.

Details of the Supplier of the SDS:

Pacific Biocontrol Corporation
14615 NE 13th Court, Suite A
Vancouver, Washington 98685 U.S.A.
Phone:
Company URL:

360-571-2247/ 800-999-8805
www.pacificbiocontrol.com

Emergency Telephone Numbers:

Medical:	Call Doctor or 800-222-1222
Poison Control Center:	Call CHEMTREC
Leak, Fire, Spill or Accident:	800-424-9300
CHEMTREC (USA and Canada)	703-527-3887
CHEMTREC (International)	

2. Hazards Identification

Classification of the Substance or Mixture*:

GHS Classification

Physical Hazards

Flammable liquids:	Category 2, (Flammable aerosol)
Self-reactive substances:	Not classified
Pyrophoric liquids:	Not classified
Self-heating substances:	Not classified
Substances which, in contact with water, emit flammable gases:	Not classified
Oxidizing liquids:	Not classified

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2. Hazards Identification continued

Classification of the Substance or Mixture*:

GHS Classification

Health Hazards

Acute toxicity:	Not available
Skin irritation:	Category 2
Eye irritation:	Category 2
Respiratory sensitization:	Not available
Skin sensitization:	Not available
Germ cell mutagenicity:	Not-classified
Carcinogenicity:	Not available
Reproductive toxicity:	Not available
Specific target organ toxicity single exposure:	Not available
Specific target organ toxicity repeated exposure:	Not available
Aspiration hazard:	Not available

Environmental Hazards

Acute aquatic toxicity:	Not available
Chronic aquatic toxicity:	Not available

Pictogram:



* This product is registered under the USA Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Refer to Section 15 "Regulatory information" of this SDS to find the FIFRA label elements.

3. Composition/Information on Ingredients

Description of the Mixture:

This product contains the mixture of (E,E)-8,10-Dodecadien-1-ol*, (Z)-8-Dodecen-1-yl Acetate*, (E)-8-Dodecen-1-yl Acetate*, (Z)-8-Dodecen-1-ol* and others ingredients**.

Composition/Ingredients:

Identification name	(E,E)-8,10-Dodecadien-1-ol*	(Z)-8-Dodecen-1-yl Acetate*	(E)-8-Dodecen-1-yl Acetate*	(Z)-8-Dodecen-1-ol*	Others Ingredients**
Synonyms	Codlemone, Codelure	8Z-Dodecenyl acetate	8E-Dodecenyl acetate	8Z-dodecen-1-ol	No Data
Chemical formula	C ₁₂ H ₂₂ O	C ₁₄ H ₂₆ O ₂	C ₁₄ H ₂₆ O ₂	C ₁₂ H ₂₄ O	No Data
Molecular weight	182.30	226.35	226.35	184.32	No Data
CAS No.	33956-49-9	28079-04-1	38363-29-0	40642-40-8	No Data
TSCA No. (USA)	33956-49-9	28079-04-1	38363-29-0	40642-40-8	No Data
EINECS No. (ECU)	251-761-2	248-823-6	253-904-4	255-019-9	No Data
Impurities contribute to classification	No Data	No Data	No Data	No Data	No Data
Concentration/Range (wt%)	20.34	13.14	0.80	0.13	65.59

*Component is a member of the well-characterized group of SCLPs, i.e., Straight Chain Lepidopteran Pheromones.

**Other ingredients, which are maintained as trade secrets, are any substances other than an active ingredient contained in this product. They are non-hazardous, but their identities are withheld because they are considered trade secrets.

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4. First-Aid Measures

Persons using this product should consult a physician or other medical professional if an accident involving this product caused injury. Specific first-aid measures are as follows:

Doctor or Poison Control Center (Hot Line Number):

Have the product container or label with you when calling a poison control center or doctor or when going for treatment or seeking medical attention. For medical emergencies, call the poison control center at 1-800-222-1222. For general information on this product, call 1-800-999-8805, Monday through Friday, 9AM to 5PM (PST).

Recommendations for a Doctor or Poison Control Center:

Symptomatic treatment. The chemical group is pheromone. No specific antidote is known. There are no signs or symptoms of poisoning and, there have been no reports of poisoning.

If on Skin or Clothing:

Remove contaminated clothing. Immediately rinse skin for 15-20 minutes using plenty of water. Contact a poison control center or doctor for treatment advice.

If in Eyes:

Immediately hold eyes open, slowly and gently rinse with water for 15-20 minutes. If wearing contact lenses, rinse eyes for 5 minutes, remove contact lenses, and continue rinsing. Contact a poison control center or doctor for treatment advice.

If Inhaled:

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. Contact a poison control center or doctor for treatment advice.

If Swallowed:

Contact a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

First Aid Safeguards:

Use gloves, or other protective equipment as required.

5. Fire-Fighting Measures

Flammable Properties:

Flash Point: Flame projection is 16.0 in (ASTM D3065-01) with no flashback.

Flammable Limits: Not established. **LEL:** Not established. **UEL:** Not established.

Extinguishing Media:

Suitable extinguishing media: CO₂, extinguishing powder or alcohol-resistant foam.

Unsuitable extinguishing media: High volume water jet.

Special Hazards:

Flammable. Contents are under pressure. Keep away from ignition sources, heat, sparks and open flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.

If exposed to heat or fire, may generate irritating gases of carbon monoxide and carbon dioxide. If container is not properly cooled, it can rupture in the heat of a fire.

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5. Fire-Fighting Measures continued

Precautions and Special Protective Equipment for Firefighters:

Pressurized container is flammable. In case of fire and/or explosion, do not breathe fumes. Evacuate area of all unnecessary personnel. Use standard firefighting procedures. Self-contained breathing apparatus and full protective clothing must be worn if containers rupture and contents are released under fire conditions.

Eliminate all ignition sources, if safe to do so.

Move containers away from fire area if there is no risk. Use water fogging nozzle to cool containers, if safely possible. Don't use high volume water jet.

Additional information: Collect contaminated firefighting water separately as it must not enter drains or sewers.

6. Accidental Release Measures

Methods and Materials for Containment and Cleaning Up:

Mark off the area near around the spill by roping and seal off except authorized personnel. Ensure adequate ventilation. In the case of an indoor leakage, ventilate before entering and provide ventilation while cleaning-up.

Wear and use self-contained breathing apparatus, chemical cartridge respirator for organic gases, protective gloves, protective eyewear, protective boots or other protective apparel to prevent excessive skin contact and protect eyes.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste according to federal and local law.

For small spills: Absorb spill with dry sand, earth or charcoal, then place in chemical waste container. Do not allow to enter drainage system, sewers, surface or ground water.

For large spills: Collect with a pump and transfer to a metal container with a seal. Absorb spill with dry sand or charcoal, and do not allow to enter drainage system, sewers, surface or ground water. Mop up the residual spill with charcoal or absorbent materials. Dispose of contaminated absorbents according to federal and local law. Work from the windward position.

Environmental Precautions:

Do not allow to enter drainage system, sewers, surface or ground water.

For terrestrial uses: Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high-water mark. Do not contaminate water when disposing of this product. Do not contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

Do not contaminate water, food or feed by disposal.

Store container in a cool, dry place away from heat or open flame. Wastes resulting from this product may be disposed of on site or at an approved waste disposal facility. Nonrefillable container. Do not reuse or refill this container. An empty can may be discarded in trash or at an approved waste disposal facility. Do not puncture or incinerate. If can is empty offer for recycling.

7. Handling and Storage

General Items:

Use this product for its intended purpose.

Read the instructions on the product label carefully. Do not eat, drink or smoke when handling this product or when in its storage area. Keep out of reach of children. Keep away from ignition sources, heat, sparks and open flame.

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7. Handling and Storage continued

Precautions for Safe Handling:

Keep out of reach of children. CAUTION. Harmful if swallowed, inhaled or absorbed through skin. Causes moderate eye and skin 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, using tobacco or using toilet. Remove contaminated clothing and wash before reuse. Applicators and other handlers must wear work clothing consisting of long-sleeved shirt and long pants, shoes plus socks, chemical resistant gloves and protective eyewear.

Conditions for Safe Storage, Including any Incompatibilities:

Store container in a cool, dry place away from heat or open flame.

Flammable. Contents are under pressure. Keep away from ignition sources, heat, sparks and open flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.

8. Exposure Controls/Personal Protection

Exposure Controls:

Harmful if swallowed, inhaled, or absorbed through skin. Causes moderate eye and skin 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, using tobacco, or using toilet. Remove contaminated clothing and wash before reuse.

Hand protection: Chemical resistant gloves.

Eye protection: Protective eyewear (goggles).

Protective wear for skin and body: Long-sleeve shirt. Long pants. Shoes plus socks.

Health Hazard Categories:

U.S. EPA Toxicity Category: III -CAUTION

Personal Protection Measures:

Use this product for its intended purpose.

Keep out of reach of children. Applicators and other handlers must wear work clothing consisting of long-sleeved shirt and long pants, shoes plus socks, chemical resistant gloves and protective eyewear. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor. After handling, wash thoroughly with soap and water before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

9. Physical and Chemical Properties

Physical and Chemical Properties:

Appearance	Aerosol
pH (pH Meter)	5.6
Solubility in water	Not applicable for the product
Boiling point	Not applicable for the product
Melting Point	Not applicable for the product
Flame Projection (Flammability)	16.0 in (ASTM D3065-01)
Upper/Lower Flammability or Explosive Limits	Contents are under pressure. Exposure to temperatures above 130°F may cause bursting.
Specific gravity	0.754
Explosive Properties	Not applicable for the product
Oxidizing Properties	Not applicable for the product

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10. Stability and Reactivity

Stability:

Product is stable under normal and anticipated storage and handling conditions as labeled. No hazardous reactions are expected from the use of the product as labeled.

Reactivity:

May react with oxygen and strong oxidizing agents, such as chlorates, peroxides, etc.

Hazardous Decomposition:

Carbon monoxide and carbon dioxide, but no decomposition if used as labeled.

Conditions to Avoid:

Avoid contact with excessive heat, sparks, or open flame. Heat (temperatures above 130°F) can cause pressurized container to explode. Do not puncture or incinerate container.

Incompatible materials:

Pheromone to strong oxidizing agents. Aerosol canister to heat or open flame

11. Toxicological Information

Due to the formulation type, no studies have been performed on the product.

Information on Toxicological Effects of (E,E)-8,10-Dodecadien-1-ol*:

Acute toxicity	Oral LD ₅₀	>2,500 mg/kg (Rats)	SCLP
		>1,075 mg/kg (Quail)	
	Dermal LC ₅₀	>1,000 mg/kg (Rats)	
	Inhalation (Gas)	No data	
	Inhalation (Vapor)	38 mg/l (Rat)	
	Inhalation (Mist) LC ₅₀	>2.73 mg/kg (Rats)	
Skin Corrosion/Irritation		Slight to moderate dermal irritation (Rabbits)	SCLP
Serious eye damage/Eye Irritation		Slight to moderate conjunctival irritation (Rabbits)	
Respiratory or Skin sensitivity		No skin contact sensitization response (Guinea pigs)	
Germ cell mutagenicity		Ames test: Negative	
Carcinogenicity	IARC	Not listed	
	NTP	Not listed	
	EPA	Not listed	
	ACGIH	Not listed	
	NITE	Not listed	
Reproductive toxicity		No data	
Specific target organ toxicity (Single exposure)		No data	
Specific target organ toxicity (Repeated exposure)		No data	
Aspiration hazard		No data	

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11. Toxicological Information continued

Information on Toxicological Effects of (Z)-8-Dodecen-1-yl Acetate*, (E)-8-Dodecen-1-yl Acetate* and (Z)-8-Dodecen-1-ol*:

Acute toxicity	Oral LD ₅₀	>2000 mg/kg (Rats)	SCLP
	Dermal LC ₅₀	No Data	
	Inhalation (Gas)	No Data	
	Inhalation (Vapor)	No Data	
	Inhalation (Mist) LC ₅₀	No Data	
Skin Corrosion/Irritation		Irritating to skin	
Serious eye damage/Eye Irritation		No Data	
Respiratory or Skin sensitivity		No Data	
Germ cell mutagenicity		Ames test: Negative	
Carcinogenicity	IARC	Not listed	
	NTP	Not listed	
	EPA	Not listed	
	ACGIH	Not listed	
	NITE	Not listed	
Reproductive toxicity		No data	
Specific target organ toxicity (Single exposure)		No data	
Specific target organ toxicity (Repeated exposure)		No data	
Aspiration hazard		No data	

* Component is a member of the well-characterized group of SCLPs (i.e., Straight Chain Lepidopteran Pheromones).

12. Ecological Information

Due to the formulation type, no studies have been performed on the product.

Ecological Toxicity of (E,E)-8,10-Dodecadien-1-ol*:

Aquatic environment acute harmfulness	LC ₅₀ >120 mg/L (96hr, Rainbow trout)	SCLP
	LD ₅₀ >2,150 mg/kg (14d, Bobwhite quail)	
	EC ₅₀ : 1.3 mg wm/l (48hr, Daphnia)	
	ErC ₅₀ : 0.382mg/l (72hr, Pseudokirchnella subcapitata (green algae))	
Aquatic environment chronic harmfulness	No Data	

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12. Ecological Information continued

Ecological Toxicity of (Z)-8-Dodecen-1-yl Acetate*, (E)-8-Dodecen-1-yl Acetate* and (Z)-8-Dodecen-1-ol*:

Aquatic environment acute harmfulness	EC ₅₀ >0.30ppm (48hr, Daphnia)	SCLP
	EC ₅₀ >0.40ppm (72hr, Selenastrum capricornutum)	
	LC ₅₀ >0.44ppm (96hr, Carp)	
Aquatic environment chronic harmfulness	No Data	

* Component is a member of the well-characterized group of SCLPs (i.e., Straight Chain Lepidopteran Pheromones).

Persistence and Degradability:

The product is an aerosol.

13. Disposal Considerations

Waste Disposal:

Use this product for its intended purpose.

Do not contaminate water, food or feed by storage or disposal. Do not contaminate water by cleaning of equipment or disposing of equipment wash waters.

Wastes resulting from this product may be disposed of on site or at an approved waste disposal facility. Nonrefillable container. Do not reuse or refill this container. Remove empty can from emitter and discard in trash or at an approved waste disposal facility. Do not puncture or incinerate. If can is empty offer for recycling.

14. Transport Information

Transportation by Road:

Description:	Aerosol, Flammable (each not exceeding 1 L Capacity)
Hazard Class:	2.1
Freight Class:	UN1950 Limited Quantity
Packing Group:	Not applicable

Transportation by Air:

Description:	Aerosol, Flammable
Hazard Class:	2.1
Freight Class:	UN1950
Hazard Label:	Flammable gas
Packing Group:	Not applicable

Special Precautions for User:

Pressurized container: Protect from sunlight and do not expose to temperatures exceeding 130 °F. Do not pierce or burn, even after use. Do not spray on a flame or any incandescent material.

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15. Regulatory Information

U.S. EPA

This 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 SDSs, and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is below. The pesticide label also includes other important information, including the Directions for Use.

KEEP OUT OF REACH OF CHILDREN. CAUTION: Harmful if swallowed, inhaled or absorbed through skin. Causes moderate eye and skin 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, using tobacco or using toilet. Remove contaminated clothing and wash before reuse.

ISOMATE CM/OFM Mist Plus is registered with the U.S. EPA under EPA Registration Number 53575-50. This product is categorized under U.S. EPA Toxicity Category: III -CAUTION.

16. Other Information

These data are based on our current knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This safety data sheet is offered solely for your information, consideration and investigation. The data described in this SDS consist of data on literature, our acquisition data and analogical inference by data of similar chemical substances or products. Pacific Biocontrol provides no warranties, either express or implied, and assumes no responsibility for the accuracy or completeness of the data contained herein. Final determination of suitability of any material is the sole responsibility of the user.

Issued Date:

January 25, 2024