



PACIFIC BIOCONTROL CORPORATION

SAFETY DATA SHEET

1. Identification of Product and Company

Product Name: ISOMATE® CM/OFM Mist Plus

U.S. EPA Registration Number: 53575-50

Product Uses:

For Agricultural Use: This product contains behavior modifying biochemicals (pheromones) that disrupt the mating of the codling moth (CM) and the oriental fruit moth (OFM) and is to be used as directed on its label.

Supplier of the SDS:

Pacific Biocontrol Corporation
14615 NE 13th Court, Suite A
Vancouver, Washington 98685 U.S.A.
Phone: 360-571-2247
800 Number: 800-999-8805
Fax: 360-571-2248
www.pacificbiocontrol.com

Emergency Telephone Numbers:

Medical: Call Doctor or
800-222-1222
Poison Control Center:
Leak, Fire, Spill or Accident: Call CHEMTREC
CHEMTREC (USA and Canada) 800-424-9300
CHEMTREC (International) 703-527-3887
No-Emergency Information: Call NPIC
M-F, 8am-12pm PST

2. Hazard(s) Identification

Classification of the substance or mixture:

Hazard Classification: Irritant (skin and eye); Flammable (aerosol)
U.S. EPA Signal Word: CAUTION
Hazard Statements: None



Pictogram:

Precautionary Statements:

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.

3. Composition/Information on Ingredients

Components	CAS NO.	Percentage
(E,E)-8,10-Dodecadien-1-ol*	33956-49-9	20.34
Z-8-Dodecen-1-yl Acetate*	28079-04-1	13.09
E-8-Dodecen-1-yl Acetate*	38363-29-0	0.84
Z-8-Dodecen-1-ol*	40642-40-8	0.14
Other Ingredients**		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

First Aid:

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. For non-emergency information, call the National Pesticide Information Center at 1-800-858-7378, Monday through Friday, 8:00 am to 12:00 pm PST (www.npic.orst.edu). For emergencies, call your poison control center at 1-800-222-1222.

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.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

Alcohol resistant foam, water fog, carbon dioxide (CO₂). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable Extinguishing Media:

High volume water jet. Do not discharge extinguishing waters into the aquatic environment.

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. During fire, gases hazardous to health may be formed. If container is not properly cooled, it can rupture in the heat of a fire.

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.

Hazardous Combustion Products:

Hazardous decomposition products may include carbon oxides, hydrogen fluoride, carbonyl fluoride.



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6. Accidental Release Measures

Personal Precautions:

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 the toilet. Remove contaminated clothing and wash before reuse.

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.

Environmental Precautions:

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 by cleaning of equipment or disposing of equipment wash waters.

Methods for Containment and Cleaning Up:

Wear appropriate clothing including protective garments to prevent excessive skin contact and protective eyewear. Stop spill or release, if safe to do so. Water fog or mist may be useful in minimizing or dispersing vapors. Ensure adequate ventilation, and ventilate closed spaces before entering them. If in a confined space, use self-contained breathing apparatus. Eliminate all ignition sources, if safely possible.

For spills, soak up with an appropriate absorbent material and dispose of safely. Use a non-combustible material like vermiculite, diatomite, sand or earth to soak up product. Remove contaminated absorbent material and dispose of safely. Do not flush away with water or contaminate water when cleaning up spill.

Do not contaminate water, food or feed by disposal. Wastes resulting from this product may be disposed of on site or at an approved waste disposal facility. 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

Precautions for Safe Handling:

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.

Do not contaminate water, food or feed by storage or disposal. Contents are under pressure. Keep away from heat, sparks, flame and other possible sources of ignition. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.

Conditions for Safe Storage:

Do not contaminate water, food or feed by storage. Store container in a cool, dry place away from heat or open flame. Contents are under pressure. Keep away from heat, sparks, flame and other possible sources of ignition. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.

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.



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8. Exposure Controls/Personal Protection

Exposure Limits:

Not established for end-use product.

Appropriate Engineering Controls:

Ensure adequate ventilation, and ventilate closed spaces before entering them. If in a confined space, use self-contained breathing apparatus. Eliminate all ignition sources. Eye washes and showers for emergency use.

Personal Protection Measures:

Wear protective garments to prevent excessive skin contact and protective eyewear. 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. (Personal protection is based upon normal uses and conditions as labeled.)

Special Requirements:

For agricultural use only. Use outside with adequate ventilation. Not to be used inside or in closed spaces.

9. Physical and Chemical Properties

Properties	
Appearance	Aerosol
Odor	Mild and fatty-fruity odor
pH	Not applicable for aerosol
Flame Projection (Flammability)	16.0 in. (ASTM D3065-01)
Explosive Limits	Contents are under pressure. Exposure to temperatures above 130°F may cause bursting.
Melting/Freezing Point	Not applicable for aerosol
Boiling Point	Not applicable for aerosol
Evaporation Rate	Not established for aerosol
Vapor Pressure	Not established for aerosol
Specific Gravity	0.754
Solubilities	Not applicable for aerosol
Partition Coefficient; Auto-ignition Temperature; Decomposition Temperature	Not established for aerosol
Viscosity	Not applicable for aerosol

10. Stability and Reactivity

Chemical Stability:

Product is stable under normal conditions of use, storage and transport (as directed on product's label and SDS).

Hazardous Reactions:

Heat (temperatures above 130°F) can cause pressurized container to explode.

Conditions/Materials to Avoid:

Pressurized container is flammable. Avoid contact with excessive heat, sparks, open flame or other possible sources of ignition. Do not puncture or incinerate container.



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11. Toxicological Information

CM/OFM Mist Plus Pheromone Components are members of the well-characterized group of SCLPs. The U.S. EPA has reviewed this class of pheromones, and “it is the Agency’s position that based on low toxicity in animal testing, and expected low exposure to humans, no risk to human health is expected from the use of lepidopteran pheromones, and consumption of food containing residues of these pheromones present no risk.”

The data available to the U.S. EPA (Federal Register Notice 1/26/94) on pheromones indicated no acute mammalian toxicity at the limit dose levels as follows: acute oral toxicity ($LD_{50} > 5,000$ mg/kg - category IV, nontoxic); acute dermal toxicity ($LD_{50} > 2,000$ mg/kg – category IV, nontoxic); acute inhalation toxicity (LD_{50} generally > 5 mg/L – category III-IV, practically nontoxic); no evidence of mutagenicity (Ames *Salmonella* assay); minimal eye and skin irritation (category IV); pheromones are also not likely to be dermal sensitizers (Buehler hypersensitivity test).

Precautionary Statements:

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.

12. Ecological Information

CM/OFM Mist Plus Pheromone Components are members of the well-characterized group of SCLPs, a class of pheromones where “adverse effects on non-target organisms (mammals, birds and aquatic organisms) are not expected because these pheromones are released in very small amounts to the environment and act on a select group of insects”.

Environmental Hazards Statements:

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 by cleaning of equipment or disposing of equipment wash waters.

13. Disposal Considerations

Waste Disposal:

Do not contaminate water, food or feed by storage or disposal. 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 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.



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14. Transport Information

Transportation by Road:

Shipping Name:	Aerosols, flammable (each not exceeding 1 L capacity)
Hazard Class:	2.1
UN Number:	UN1950
	Limited Quantity
Packing Group:	Not applicable

Transportation by Air:

Shipping Name:	Aerosols, flammable
Hazard Class:	2.1
UN Number:	UN1950
Hazard Label:	Flammable gas
Packing Group:	Not applicable

15. Regulatory Information

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 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

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.

This product is registered under U.S. EPA Registration Number 53575-50 and is categorized under U.S. EPA Toxicity Health Hazard Category III – CAUTION.

16. Other Information

These data are based on our present 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.

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