



PACIFIC BIOCONTROL CORPORATION

SAFETY DATA SHEET (SDS)

Prepared: May 20, 2015

1. Identification of Product and Company

Product Name:

ISOMATE® CM/OFM TT

EPA Registration No.:

53575-30

Product Uses:

For Agricultural Use:

These hand-applied products emit the pheromones of the codling moth (CM) and the oriental fruit moth (OFM) to disrupt their mating and are applied in pome fruits, stone fruits and tree nut crops where CM and OFM are overlapping problems.

Supplier of the SDS:

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

Emergency Telephone Numbers:

Medical: Call Doctor or
Poison Control Center: 800-222-1222
Additional Information: 800-999-8805

Manufacturer:

Shin-Etsu Chemical Co., Ltd.

2. Hazard(s) Identification

Classification of the substance or mixture:

Hazard Classification:

Irritant (skin and eye)

EPA Signal Word:

Caution (reference section 15)

Hazard Statements:

None



Pictogram:

Precautionary Statements:

(Reference section 15)

Avoid contact with skin, eyes or clothing. Harmful if absorbed through skin. Causes moderate eye irritation. 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. Wear chemical resistant gloves.

3. Composition/Information on Ingredients

CM Pheromone Components*	CAS NO.	EINECS NO.
(E,E)-8,10-Dodecadien-1-ol	33956-49-9	251-761-2
1-Dodecanol	112-53-8	203-982-0
1-Tetradecanol	112-72-1	204-000-3
OFM Pheromone Components*	CAS NO.	EINECS NO.
Z-8-Dodecen-1-yl Acetate	28079-04-1	248-823-6
E-8-Dodecen-1-yl Acetate	38363-29-0	253-904-4
Z-8-Dodecen-1-ol	40642-40-8	255-019-9

*Components are members of the well-characterized group of SCLPs (i.e. Straight Chain Lepidopteran Pheromones).

Trade Secret (TS) Some items on this SDS may be designated as trade secrets. Bonafide requests for disclosure of trade secret information to medical personnel must be made in accordance with the provisions contained in 29 CFR 1910.1200(i)1-13.

ISOMATE® is a registered Trademark of Pacific Biocontrol Corporation.



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4. First-Aid Measures

First Aid:

Doctor or Poison Control Center:

Have the product container or label with you when contacting a poison control center or doctor or going for treatment.

If on Skin or Clothing:

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Contact a poison control center or doctor for treatment advice.

If in Eyes:

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Contact a poison control center or doctor for treatment advice.

5. Fire-Fighting Measures

Flammable Properties:

Flash Point:

Not established for pheromone dispenser. Flash point is 98°C for CM/OFM Pheromone Blend.

Protection against Explosions and Fires:

Keep away from ignition sources, heat, sparks and open flame.

Extinguishing Media:

Carbon dioxide (CO₂), extinguishing powder or water spray/fog. Fight larger fires with water spray/fog or alcohol-resistant foam.

Protection for Firefighters:

Use standard fire fighting procedures. Collect contaminated fire fighting water separately as it must not enter drains.

6. Accidental Release Measures

Personal Precautions:

Reference sections 7 and 8.

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 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 dispose of new or unused dispensers in or near streams or bodies of water.

Methods for Containment and Cleaning Up:

Due to the small amount of chemicals in the product, even if the container or dispenser is damaged or broken, a spill of the chemical is highly unlikely.

Do not dispose of new or unused dispensers in or near streams or bodies of water. Wastes resulting from this product, disposal of empty dispensers or disposal of unused, unwanted product may be disposed of on site or at an approved waste disposal facility or in accordance with local regulations. Dispose of empty foil packet in the trash or in accordance with local regulations. For information in case of a spill and for clean up of spills, contact the manufacturer or the local regulatory agency.



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7. Handling and Storage

Precautions for Safe Handling:

Do not open foil envelopes until ready to use. When handling dispensers wear resistant gloves and eye protection. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Conditions for Safe Storage:

Do not contaminate water, food or feed by storage or disposal. Store unopened package in a dry location at temperatures below 40°F or 4°C. To prevent contamination with food or feed, store only unopened product packages in cold storage facilities that are used for food or feed.

8. Exposure Controls/Personal Protection

Exposure Guidelines:

Do not contaminate water, food or feed by storage or disposal. Reference sections 6 and 7.

Engineering Controls:

None

Personal Protection Measures:

When handling dispensers wear gloves and eye protection. Protective gloves should be impermeable and resistant to the product (suggested material: nitrile or neoprene). Wear eye protection, such as safety glasses or goggles. May also want to wear long sleeved shirt, long pants, shoes and socks.

Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Personal protection provided is based upon normal uses and conditions.

9. Physical and Chemical Properties

Properties	Mixture of CM/OFM Pheromone Components*
Physical State	Colorless or Light Yellow Transparent Liquid
Odor	Mild and fatty-fruity
pH	6.0
Melting Point	-63.5°C, 22.1°C
Initial Boiling Point & Boiling Range	120-125°C/2mmHg
Flash Point	98°C
Vapor Pressure	8.16 x 10 ⁻³ mmHg (25°C)
Specific Gravity	0.870 (25°C)
Solubility	Soluble n-hexane, cyclohexane, benzene, toluene, acetone, methanol, ethanol, chloroform, acetonitrile, pyridine, aniline, DMF, etc. (insoluble in DMSO, ethylene glycol)
Viscosity	13.4 c.s. (25°C)

*Components are members of the well-characterized group of SCLPs.



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10. Stability and Reactivity

Chemical Stability:

Product is stable under normal conditions and if stored as recommended under section 7.

Conditions/Materials to Avoid:

Avoid contact with strong oxidizing agents, ignition sources, excessive heat, sparks or open flame.

Hazardous Decomposition:

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

Hazardous Reactions:

None known

11. Toxicological Information

CM/OFM Pheromone Components are members of the well-characterized group of SCLPs, a class of pheromones with no expected risks to human health. (Toxicology data are not required for this type of product as a SCLP under U.S. EPA 40 CFR 158.2050(a)(2), respectively.)

CM Pheromone Blend:

Acute Toxicity:

Oral LD50	>5000 mg/kg
Dermal LD50	>2000 mg/kg
Inhalation LC50	>5 mg/l

OFM Pheromone Blend:

Acute Toxicity:

Oral LD50	>1712 mg/kg
Dermal LD50	>2000 mg/kg
Inhalation LC50	>11.37 mg/l

Primary Irritant Effect:

On the Skin:	Slight to Moderate
In the Eye:	Slight to Moderate
Sensitization:	Not considered skin sensitizer

KEEP OUT OF REACH OF CHILDREN. Avoid contact with skin and eyes. Can cause skin and eye irritation.

12. Ecological Information

CM/OFM Pheromone Components are members of the well-characterized group of SCLPs, a class of pheromones with no expected risks to human health or non-target organisms. (Non-target toxicology data are not required for this type of product as a SCLP under U.S. EPA 40 CFR 158.2060(a)(2), respectively.)

CM Pheromone Blend:

Birds (LD50, 14-day)	>2150 mg/kg
Fish (LC50, 96-hour)	>120 mg/l
Daphnia (EC50, 48-hour)	>1.3 mg/l



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12. Ecological Information Continued

OFM Pheromone Blend:

Birds (LD50)	>2000 mg/kg
Fish (LC50)	>1000 mg/l
Daphnia (LC50, 48-hour)	>0.4 mg/l

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 dispose of new or unused dispensers in or near streams or bodies of water.

13. Disposal Considerations

Product:

Recommendation:

Do not dispose of new or unused dispensers in or near streams or bodies of water. Wastes resulting from this product, disposal of empty dispensers or disposal of unused, unwanted product may be disposed of on site or at an approved waste disposal facility or in accordance with local regulations

Unclean Packaging:

Recommendation:

Dispose of empty foil packet in the trash or in accordance with local regulations.

14. Transport Information

Transportation:

Description:	Plastic hand-applied pheromone dispenser.
Hazard Class:	Not applicable – Not classified as dangerous.
Freight Class:	CLASS 60
Identification Numbers:	NMFC# S155050-12
Packing Group:	Not applicable.
Flash Point:	

Not established for pheromone dispenser. Flash point is 98°C for CM/OFM Pheromone Blend.

15. Regulatory Information

U.S. EPA

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

Avoid contact with skin, eyes or clothing. Harmful if absorbed through skin. Causes moderate eye irritation. After handling, wash thoroughly with soap and water before eating, drinking, chewing gum, using tobacco or using toilet. Remove and wash contaminated clothing before reuse. Wear chemical resistant gloves and protective eyewear.



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15. Regulatory Information Continued

This product is registered with the U.S. EPA under EPA Registration Numbers 53575-30. Product is categorized under U.S. EPA Toxicity Health Hazard Category III – CAUTION.

Health Canada

ISOMATE CM/OFM TT is registered for sale in Canada under PCP Number 29352 and has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations. This SDS will be noncompliant three years after the issue date.

16. Other Information

FOR AGRICULTURAL USE ONLY

Pacific Biocontrol Corporation is unaware of any local, state or federal regulations which define the active ingredient as hazardous. As of the preparation date, this product did not contain a chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

This SDS 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.

SDS Authoring Information:

Revision Date:

May 20, 2015 (replaces all previous versions)

SDS Prepared By:

Pacific Biocontrol Corp.