

MATERIAL SAFETY DATA SHEET

ISOMATE®-CM/LR TT

US EPA Registration No. 53575-31

PRODUCT AND COMPANY INFORMATION

Registrant: Pacific Biocontrol Corporation
14615 NE 13th Court, Suite A
Vancouver, WA 98685 USA

Emergency Telephone No.: 1-800-999-8805 or
1-360-571-2247

Manufacturer: Shin-Etsu Chemical Co., Ltd-Japan

Product Name and Use: Isomate-CM/LR TT suppresses mating of codling moth (*Cydia pomonella*), obliquebanded leafroller (*Choristoneura rosaceana*), pandemis leafroller (*Pandemis pyrusana*), fruittree leafroller (*Archips argyrospilus*), threelined leafroller (*Pandemis limitata*), European leafroller (*Archips rosanus*) in apples, pears, quince, and other pome fruits; peaches, prunes, plums, nectarines, cherries, and other stone fruits; walnuts, pecans, and other tree nut crops.

Chemical Name: Insect pheromone mixture of chemicals below:

COMPOSITION / INFORMATION ON INGREDIENTS

Components:	Percent	CAS No.	OSHA PEL and AGIH TLV
(E,E)-8,10-Dodecadien-1-ol	38.62	33956-49-9	Not applicable
1-Dodecanol	6.00	112-53-8	Not applicable
1-Tetradecanol	1.40	112-72-1	Not applicable
Z-11-Tetradecen-1-yl Acetate	38.04	20711-10-8	Not applicable
Z-9-Tetradecen-1-yl Acetate	4.34	16725-53-4	Not applicable
Z-11-Tetradecen-1-ol	1.05	34010-15-6	Not applicable
Z-11-Tetradecenal	1.00	35237-64-0	Not applicable
Other Ingredients	9.55		Not applicable

Pacific Biocontrol is unaware of any regulations, which define the ingredients as hazardous.

PHYSICAL AND CHEMICAL CHARACTERISTICS

Appearance and Odor: A long plastic, brown tube that can be separated for application. The pheromone formulation is within the dispenser and has an appearance of a colorless or light yellow transparent liquid with an oily-fatty, slightly waxy odor. The tube itself is odorless. Since the pheromone formulation is within the dispenser; the following characteristics are for the dispenser tube only:

Melting Point: 102-106°C

Specific Gravity (Water = 1): 0.92g/ml

Boiling Point: (solid)

Vapor Pressure: (solid)

Evaporation Rate: .035mg/dispenser/hr maximum

pH: 7 (the same as water)

Octanol/Water Partition Coefficient: Insoluble in water or octanol.

Solubility (Oil): Soluble in hydrocarbon, chlorohydrocarbon at high temperatures.

Net Contents: Foil packets at 400 dispensers per packet. A packet is 12x8x3/4 inches. One dispenser contains 362.77 mg of pheromone. Total content of package: 108.83 gm.

FIRE FIGHTING MEASURES

Flammability: Flammable

Explosibility Characteristics: None

Special Fire Fighting Procedures: If burned, stay out of smoke. Use standard fire fighting procedures.

Recommended Extinguishing Media: Foam, carbon dioxide, dry chemical, and water fog

STABILITY AND REACTIVITY DATA

Stability: Stable against sunlight and hydrolysis exposing to water.

Incompatibility (Materials to Avoid) or Hazardous Decomposition Products: None

Corrosion or Dielectric Breakdown Voltage Characteristics: None

Oxidizing/Reducing Reaction: Stable

Hazardous Polymerization: Will not occur

ENVIRONMENTAL HAZARD DATA

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.

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Revision Date: February 2009

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HEALTH HAZARD DATA

Acute Toxicity Data is determined by the pheromone active ingredient within the dispenser tube:

Acute Oral in Rats: LD₅₀>5000mg/kg

Acute Dermal in Rats: LD₅₀>2000mg/kg

Primary Eyes Irritation in Rabbits: All eye irritation cleared by 72 hours.

Acute Inhalation in Rats: Non toxic; LC₅₀>5.26mg/l

Health Hazard Categories: EPA Toxicity Category III - CAUTION

Chronic Toxicity Data: Not required. Adverse human effects are not expected.

Primary Dermal Irritation in Rabbits: Slight to moderate skin irritation

Dermal Maximization in Guinea Pigs: Not considered a skin sensitizer

Ames Test: No mutagenicity

OVER EXPOSURE CONTROLS

Human Health Effects or Risks from Over Exposure: Harmful if absorbed through skin. Causes moderate eye irritation.

Hazardous Effects from Over Exposure: No known hazardous side effects.

Listed as Carcinogen by NTP, I.A.R.C., or OSHA: No

FIRST AID MEASURES

If on Skin or Clothing: Remove contaminated clothing. Immediately rinse skin for 15-20 minutes using plenty of water. If irritation persists, contact a poison control center or a 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. If irritation persists, contact a poison control center or a doctor for treatment advice.

If Calling or Going to Doctor or Poison Control Center for Treatment: Have the product container or label with you. For emergency information on this product, call the **National Pesticides Information Center** at 1-800-858-7878, 6:30AM to 4:30PM Pacific time (PT), seven days a week. During other times, call the poison control center at 1-800-222-1222. You may also contact Pacific Biocontrol at 1-800-999-8805 for additional information.

PERSONAL PROTECTION

Respiratory Protection/Ventilation/Local Exhaust/Mechanical: Not necessary with this product.

Protective Clothing or Equipment: Wear chemical resistant gloves and protective eyewear.

Work/Hygienic Practices: Avoid contact with skin, eyes, or clothing. Do not touch eyes while handling or attaching the dispensers. After handling, wash thoroughly with soap and water and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

HANDLING AND STORAGE PROCEDURES

Precautions to be Taken in Handling and Storage: Store original unopened package in a dry location at temperatures below 40°F. Do not store in cold facilities used for food.

ACCIDENTAL RELEASE MEASURES

Steps to be Taken in Case Material is Released or Spilled: Collect dispensers, reseal packet with tape and place in original carton.

Waste Disposal Methods (Consult Federal, State, or Local Regulations): Nonrefillable container. Do not reuse or refill this container. Waste resulting from this product may be disposed of on site or at an approved waste disposal facility. Dispose of empty foil packet in the trash.

Notice: While this information and recommendations set forth are believed to be accurate and must be followed carefully, Pacific Biocontrol Corporation makes no other warranties, and disclaims all other warranties, expressed or implied, including but not limited to warranties of merchantability and fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. Read label directions carefully.

Prepared by: Kathy Bolan, Registration Agent, Pacific Biocontrol