



# PACIFIC BIOCONTROL CORPORATION

## SAFETY DATA SHEET

### 1. Identification of the Products and Company

#### Product Identifiers:

**ISOMATE® FBW Ring**  
U.S. EPA Registration Number: 53575-45

**ISOMATE® HSW Flex**  
Mexico Registry: RSCO-INAC-0709-X0198-051-91.83

Identification of the substance: The mixture of filbertworm or hickory shuckworm pheromone technical.

#### Relevant Identified Uses of the Substance or Mixture:

For Agricultural Use Only. This product contains the mixture of (E,E)-8,10- Dodecadien-1-yl acetate and stabilizers. This product emits behavior modifying biochemicals (pheromones) that disrupt the mating of filbertworm (FBW) and hickory shuckwork (HSW) and is to be used as directed on its approved pesticide label.

#### Important Notice:

This product contains a mixture. This SDS applies only in case that the container (pheromone dispenser) breaks and the mixture is set free. All information given on this SDS refers to the contained mixture. The product is safe for use. Due to the small amount of the chemicals in the product, the type of container (pheromone dispenser), a spill of the mixture is highly unlikely.

#### Details of the 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

Company URL:

[www.pacificbiocontrol.com](http://www.pacificbiocontrol.com)

#### Emergency Telephone Numbers:

**Medical:**

Call Doctor or

**Poison Control Center:**

800-222-1222

**Additional Information:**

800-999-8805

### 2. Hazards Identification

#### 2.1 Classification of the Substance or Mixture:

##### GHS Classification

##### Physical Hazards

Flammable liquids:	Not classified
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

#### 2.1 Classification of the Substance or Mixture

##### GHS Classification

##### Health Hazards

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

##### Environmental Hazards

Acute aquatic toxicity:	Not possible
Chronic aquatic toxicity:	Not possible

#### 2.2 Label Elements

Pictograms or symbols:	None
Signal word:	None

### 3. Composition/Information on Ingredients

#### Description of the Mixture:

This product contains the mixture of (E,E)-8,10- Dodecadien-1-yl acetate and stabilizers.

#### Composition/Ingredients:

Identification Name	(E,E)-8,10- Dodecadien-1-yl acetate
Synonyms	E8E10-12Ac
Chemical Formula	C <sub>14</sub> H <sub>24</sub> O <sub>2</sub>
Molecular Weight	224
CAS No.	53880-51-6
TCSA NO. (USA)	53880-51-6
EINECS NO. (EU)	258-834-8
Impurities Contribute to Classification	No Data
Concentration / Range (wt%)	85-95



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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 in injury. Specific first-aid measures are as follows:

**Doctor or Poison Control Center:**

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

**Recommendations for a Doctor or Poison Control Center:**

Symptomatic treatment. 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 and wash separately before reuse. 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.

**If inhaled:**

Supply fresh air; seek medical advice in case of symptoms. If feeling woozy or badly, get medical attention. If victim is vomiting, turn his face sideways for breathing. If breathing is weak, irregular or has stopped, open airway, administer artificial respiration immediately, and get medical attention immediately.

**If in Ingested:**

If more than trace quantities have been swallowed and if the victim is conscious, wash out mouth with water and give about 8 fluid ounces (or 250 ml) of warm water to drink. If victim is unconscious, do not put anything into the mouth. Seek medical advice immediately.

**Prospective Acute or Late Symptoms:**

Eye or skin contact: reddening, pain, chemical attack.

Inhalation: dizziness, drowsiness, headache, nausea, weakness feeling.

**First Aid Safeguards:**

Use self-contained breathing apparatus, chemical cartridge respirator for organic gases, gloves, or other protective equipment as required.

### 5. Fire-Fighting Measures

A high concentrated vapor or mist of this material may cause an explosion, if ignited by an explosive decomposition. There is the possibility of combustion or explosion, if in highly oxygen concentrated atmosphere.

**Extinguishing Media:**

Suitable Extinguishing Agents: CO<sub>2</sub>, extinguishing powder or alcohol-resistant foam.

Unsuitable Extinguishing Agents: High volume water jet.

**Special Hazards Arising from the Substance or Mixture:**

If exposed to heat or fire, it decomposes and may generate toxic irritating gases.

Special Hazards Caused by the Material, Its Products of Combustion or Flue Gases: Carbon monoxide and carbon dioxide.



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### 5. Fire-Fighting Measures continued

**Specific Extinction Method:**

For Firefighting: Work from windward. Use an appropriate extinguishing media, as the fire could be expanded by water spray. If safely possible, move the product from near the fire to out of the area of the fire. If it is possible, cool down the product with plenty of water spray. Don't use a high-volume water jet.

**Advice for Firefighters:**

Use a self-contained breathing apparatus, chemical cartridge respirator for organic gases, protective gloves, or other protective equipment for fire-fighting.

Additional Information: Collect contaminated firefighting water separately. It must not enter drains.

### 6. Accidental Release Measures

Mark off the area near around the spill by roping and seal off except authorized personnel.

**Note for Preventing Hazards:**

In the case of indoor leakage, give plenty of ventilation until finishing the clean-up. Wear and use a self-contained breathing apparatus, chemical cartridge respirator for organic gases, protective gloves, protective goggles, protective boots or other protective apparels for handling the vapor concentrate.

**Environmental Precautions:**

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

During the handling of the product, avoid the contamination of soils, rivers, lagoons, streams, dams, channels or water tanks. Improper use of this product may contaminate underground water. Avoid handling near water wells and do not apply where the level of the aquifer is little deep (75 cm depth) and the soils are very permeable (sandy).

**Methods and Materials for Containment and Cleaning Up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste according to federal and local law. Ensure adequate ventilation. Mark containment area. During an indoor leakage, ensure enough ventilation to finish cleaning up. Wear and use self-contained breathing apparatus, chemical cartridge respirator for organic gases, protective gloves, protective goggles, protective boots or other protective equipment.

Due to the small amount of chemicals in the product, even if the container (pheromone dispenser) is damaged or broken, a spill of the chemical is highly unlikely. In case of accidental spill of the product, recover product where possible. Otherwise collect it and dispose in accordance with local regulations. Contact the manufacturer and the local regulatory agency in case of a spill and for clean-up of spills.

Do not contaminate water, food or feed by disposal. Do not contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes. Do not dispose of dispensers in or near streams or bodies of water. Improper use of this product may contaminate underground water.

**For Small Spills:** Absorb spill with dry sand, earth or charcoal, then place in chemical waste container so as not to enter into sewage or drainage system.



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### 6. Accidental Release Measures

**For Large Spills:** Collect with a pump and transfer to a metal container with a seal. Absorb spill with dry sand or charcoal, and prevent spill from entering sewers, watercourses or low areas, and prevent the penetration into the ground. Mop up the residual spill with charcoal or absorbent materials. Contaminated absorbents must be disposed of by appropriate measures. Work at the windward position.

**Note for Preventing Environment Hazards:** Salvage by removal methods as much as possible and in accordance with local regulations.

### 7. Handling and Storage

**General Items:**

Do not eat, drink or smoke when handling this product or in the storage area. Keep away from ignition sources, heat, sparks and open flame.

**Precautions for Safe Handling:**

Read the instructions on the label carefully. Do not open product packets until ready to use. Avoid contact with skin, eyes or clothing. Harmful if absorbed through skin. Can cause moderate eye irritation. When handling dispensers, wear suitable protective clothing including chemical resistant gloves and eye protection. Do not eat, drink or smoke when using this product. Keep out of reach of children, pregnant or breastfeeding women, and domestic animals. Persons under 18 years old should not handle this product. 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.

**Conditions for Safe Storage, Including any Incompatibilities:**

Do not contaminate water, food or feed by storage or disposal of unused or used dispensers. Do not transport or store along with clothes, food products or feed. Do not store at home. Store original unopened product packets in a dry location at temperatures below 40°F (4°C). To prevent contamination with food or feed, store only unopened product packets in cold storage facilities that are used for food or feed. Protect from heat and direct sunlight.

### 8. Exposure Controls/Personal Protection

**Control Parameters:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Exposure Controls:**

Keep away from water, food or feed. Immediately, remove any contaminated garments. Avoid contact with eyes and skin. Wash hands during breaks and at the end of the work.

Hand Protection: Protective gloves. The material should be impermeable and resistant to the product and mixture.

Eye Protection: Protective goggles, face shield, etc.

Protective Wear for Skin and Body: Protective boots. Long-sleeve shirt.

**Exposure limits:**

ACGH: Not listed.

OSHA: Not listed.



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### 8. Exposure Controls/Personal Protection continued

#### Personal Protection Measures:

Read the instructions on the label carefully. Do not open product packets until ready to use. Avoid contact with skin, eyes or clothing. When handling dispensers, wear suitable protective clothing including chemical resistant gloves and eye protection. Do not eat, drink or smoke when using this product. Keep out of reach of children, pregnant or breastfeeding women, and domestic animals. Persons under 18 years old should not handle this product. 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.

#### Special Requirements:

For agricultural use only. Do not contaminate water, food or feed by storage or disposal of unused or used dispensers. Do not transport or store along with clothes, food products or feed. Do not store at home. To prevent contamination with food or feed, store only unopened product packets in cold storage facilities that are used for food or feed. Keep away from ignition sources, heat, sparks and open flame.

### 9. Physical and Chemical Properties

Properties	FBW/HSW Pheromone Components *
Appearance	Colorless or light yellow transparent liquid
Odor	Mild waxy and sweet
Odor Threshold	None
pH	3.4
Melting Point / Freezing Point	No data
Initial Boiling Point, Boiling Range	126-128°C/2mmHg
Flash Point	138°C
Evaporation Rate	No data
Flammability (solid; gas)	No data
Upper & Lower Flammable Limits / Explosive Limits	No data / No explosive characteristics
Vapor Pressure	$2.16 \times 10^{-3}$ mmHg (20°C)
Vapor Density	Not applicable
Specific Gravity	0.895 (20°C)
Solubilities	Insoluble in water (less than 0.002g/liter). Soluble in common organic solvents except DMSO and ethylene glycol.
Partition Coefficient (n-octanol/water)	More than 10,000
Decomposition Temperature	No data
Auto-ignition Temperature	No data
Stability/Storage Stability	Stable under normal conditions. Store in a dry location at temperatures below 40°F (4°C).
Corrosion Characteristics	No corrosion characteristics
Viscosity	6.7mm <sup>2</sup> /s (20°C)

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



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### 10. Stability and Reactivity

#### Reactivity:

No known hazardous reactions when stored and handled according to the pesticide label instructions. May react with oxygen and strong oxidizing agents, such as chlorates, peroxides, etc. Keep away from ignition sources, heat, sparks and open flame. Avoid oxidizing agents.

#### Chemical Stability:

Product is stable under recommended storage and handling conditions. Store in a dry location at temperatures below 40°F (4°C).

#### Conditions/Materials to Avoid:

Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Keep out of reach of children, pregnant or breastfeeding women, and domestic animals. Persons under 18 years old should not handle this product. During the handling of the product, avoid the contamination of soils, rivers, lagoons, streams, dams, channels or water tanks. Improper use of this product may contaminate underground water. Avoid handling near water wells and do not apply where the level of the aquifer is little deep (75 cm depth) and the soils are very permeable (sandy). Keep away from ignition sources, heat, sparks and open flame.

#### Incompatible Materials:

Oxidizing agents.

#### Hazardous Decomposition Products:

Carbon monoxide and carbon dioxide, but no decomposition if used according to the pesticide label instructions.

### 11. Toxicological Information

#### Information on Toxicological Effects:

		Data	Note
Acute Toxicity	Oral LD <sub>50</sub>	>15 g/kg (Rats)	----
	Dermal LD <sub>50</sub>	>2,000 mg/kg (Rats)	----
	Inhalation (Gas)	No data	----
	Inhalation (Vapor)	No data	----
	Inhalation (Mist) LC50	No data	----
Skin Corrosion/Irritation		Slightly irritating	----
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	----
Viscosity		No data	----



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### 12. Ecological Information

Toxicity:

	Data	Note
Aquatic Environment Acute Harmfulness	LC <sub>50</sub> >1,000 mg/l (Rainbow trout)	---
Aquatic Environment Chronic Harmfulness	No data	---

**Persistence and Degradable:**

The chemical in this product is easily biodegradable. The product, itself, is not biodegradable.

### 13. Disposal Considerations

**Waste Disposal:**

Do not contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes. Do not dispose of dispensers in or near streams or bodies of water.

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

During the handling of the product, avoid the contamination of soils, rivers, lagoons, streams, dams, channels or water tanks. Improper use of this product may contaminate underground water. Avoid handling near water wells and do not apply where the level of the aquifer is little deep (75 cm depth) and the soils are very permeable (sandy).

Dispose of empty dispensers or unused material that cannot be used according to the pesticide label instructions in accordance with local regulations. Dispose of empty packets in the trash or in accordance with local regulations. For information on disposal of unused, unwanted product, contact the manufacturer or the local regulatory agency. Do not contaminate water, food or feed by storage or disposal.

### 14. Transport Information

**Transportation:**

<b>Description:</b>	Plastic hand-applied pheromone dispenser
<b>Hazard Class:</b>	Not applicable – Not classified as dangerous
<b>Freight Class:</b>	CLASS 60
<b>Identification Numbers:</b>	NMFC# S155050-12
<b>Packing Group:</b>	Not applicable

**Flash Point:**

Not established for pheromone dispenser. Flash point is 138°C for FBW/HSW pheromone components.

**Special Precautions for User:**

Follow the precautions as listed on this SDS.





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### 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

Harmful if absorbed through skin. Causes moderate eye irritation. 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 toilet. Remove and wash contaminated clothing before reuse.

This product is registered under U.S. EPA Registration Number 53575-45 and is categorized under U.S. EPA Toxicity Health Hazard Category III – CAUTION.

#### Mexico

This product is registered for sale in Mexico under Registry RSCO-INAC-0709-X0198-051-91.83.

#### Safety, health and environmental/legislation specific for the substance or mixture:

Mixture evaluated according to Directive 91/414/EEC.

Listed as carcinogen by NTP, IARC, or OSHA: no

#### Chemical safety assessment:

No chemical safety assessment according to article 14 of Regulation (EC) 1907/2006 has been done.

### 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.

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*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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(Replaces all previous versions)