

# HERCON® DISRUPT Bio-Flake® CM MATING DISRUPTANT

For Codling Moth, *Cydia Pomonella*

**Disrupt Bio-Flake CM Mating Disruptant** is an insect behavior modifying biopesticide mating disruption product used to control infestations and damage caused by codling moth, *Cydia pomonella*, by disrupting normal male flight orientation to females and thereby reducing successful mating. The codling moth pheromone mating disruptant is formulated into flakes that can be rapidly applied using specialized air or ground equipment and provides a sustained release of the pheromone for the duration of the moth flight.

<b>ACTIVE INGREDIENT:</b>		
	E, E-8,10-Dodecadienol _____	8.00%
<b>OTHER INGREDIENTS:</b>	_____	92.00%
<b>TOTAL:</b>	_____	100.00 %

**NET WEIGHT:** 15.0 lb (6.81 kg) of product containing 544 grams of A.I.

Batch code \_\_\_\_\_

## CAUTION

KEEP OUT OF REACH OF CHILDREN

### FIRST AID STATEMENTS

**IF ON SKIN:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor immediately for treatment advice. **IF IN EYES:** Hold eyes 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. Call a poison control center or doctor immediately for treatment advice.

**Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call the National Pesticide Information Center (NPIC) at 1-800-858-7378 seven days a week, 6:30 am to 4:30 pm Pacific Time (NPIC Web site: [www.npic.orst.edu](http://www.npic.orst.edu)). After 4:30 pm call your poison control center at 1-800-222-1222.**

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

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

**Personal Protective Equipment (PPE):** Applicators and handlers must wear: Long-sleeved shirt and long pants, socks, shoes, chemical resistant gloves, and

protective eyewear. Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### Environmental Hazards

For terrestrial uses: Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

### User Safety Recommendations:

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## DIRECTIONS FOR USE

**IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.** Do not apply this product in any way that will contact workers or other persons either directly or through drift. For any requirements specific to your State or Tribe, consult the State/Tribal agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) restricted entry interval and notification to workers (as applicable). Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. Do not enter or allow any worker to enter into treated areas during the restricted-entry interval (REI of 4 hours). For early entry into treated areas that is permitted under the Workers Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, wear: Coveralls, chemical resistant gloves, shoes plus socks and protective eyewear.

**APPLICATION:** The application rate of **DISRUPT BIO-FLAKE® CM** is 0.6 lbs (0.262 kg) of product per acre per application. This is equivalent to 21 grams codling moth pheromone A.I. per acre. Re-apply **DISRUPT BIO-FLAKE® CM** after 60-75 days, or sooner as needed, based on local conditions, monitoring results, and field scouting. Use in combination with supplemental codling moth sprays where populations are high, or are moderate to high in the first year of treatment. Do not exceed a total application rate of 150 grams AI (4 lb of product) per acre per year.

**METHOD OF APPLICATION:** For use on all agricultural crops, including all orchards, where codling moth is a problem. For use on apple, apricot, peach, pear, pecan, plum, prune, nectarine, quince and walnut trees. Do not open pouches until ready to use. Do not

use **DISRUPT BIO-FLAKE® CM** from damaged, punctured or unsealed bags. Apply the first **DISRUPT BIO-FLAKE® CM** treatment early in the season after petal-fall when sufficient foliage has developed, just prior to the first adult male moth emergence if possible. Time the second application with the start of the second generation flight. If more than three generations or localized elevated population densities (or hot spots) occur, consult your local extension agent, Pest Consultant Advisor or distributor. This product can only be applied using Hercon-approved ground or specialized aerial equipment. For best results use a Hercon-approved sticker, such as **MICRO-TAC™ II Sticker**, to ensure the product is retained in the upper tree canopy or on the target host plant for the entire treatment period. DO NOT use in liquid ULV pesticide sprayers. The appropriate application equipment for hand application is the **HERCON PODDS™** (Pheromone On Demand Delivery System). The appropriate application equipment for mechanized ground application is either a modified hydroseeder or a modified blower, such as the **TURBO-TAC™ Applicator**, mounted on a suitable vehicle. The appropriate application equipment for aerial application is either the Hercon Pod System for application by fixed-winged aircraft or a modified helicopter applicator bucket for helicopter application.

Monitor all applications for infestation using pheromone-baited traps and by visual inspection of trees and fruit. Monitoring should begin early and continue throughout the season to help assess the effectiveness of the treatment. Monitor treatments closely. Supplementary treatments or alternative control measures are advised for codling moth and secondary pests if monitoring by pheromone traps or visual damage assessments indicate such additional treatments or measures are needed.

**Hand Application Equipment:** For hand applications using the Hercon PODDS™ (Pheromone On Demand Delivery System) mix together the following amounts of each component: 1 quart of an approved sticker such as **MICRO-TAC™ II Sticker**, 0.1 lb (45 gm) of an approved thickener such as **MICRO-THIC™**, and 1 lb (454 gm) of **DISRUPT BIO-FLAKE® CM**. With continuous moderate mixing (taking care to avoid entrainment of air bubbles) slowly add thickener to sticker until uniformly dispersed and thickening is observed. Then slowly add the **DISRUPT BIO-FLAKE® CM** and mix until product is uniformly suspended throughout the mixture. The mix contains 30% **DISRUPT BIO-FLAKE® CM** by weight. Place this mixture in the reservoir bottle of the **PODDS™**, attach reservoir bottle to **PODDS™** gun, then attach the hose from the regulator on the compressed air or CO2 cylinder to the **PODDS™** gun. Calibrate the **PODDS™** to deliver the amount of material desired per "shot" by adjusting cocking slider stop and locking in position. Apply as high as practical to suitable areas of the trees, such as foliage branches and trunk taking care to avoid fruit if present, in a pattern that delivers the use rate of 0.6 lb (262 gm) of product per acre.

**Ground Application Equipment:** For application using a modified blower, such as the **TURBO-TAC™ Applicator**, place **DISRUPT BIO-FLAKE® CM** in equipment's hopper and blow flakes into the top part of the tree canopy either by angling the application upward into the canopy of large trees or by applying over the tops of small trees and crops and allowing the flakes to fall down into the upper part of the plant.

Use an approved sticker such as **MICRO-TAC™** or **MICRO-TAC™ II** at 4-6 oz per acre to ensure product is retained in the upper tree canopy or on the host plant for the entire treatment period.

For application using a modified hydroseeder, prepare a uniform suspension of **DISRUPT BIO-FLAKE® CM** in a tank-mix of water, approved sticker such as **MICRO-TAC™** or **MICRO-TAC™ II**, and approved thickening agent such as **MICRO-THIC™** at appropriate rates. Apply by spraying flakes into the top part of the host plant canopy either by angling the application upward into the canopy of large trees or by applying over the tops of small trees and crops allowing the flakes to fall down into the upper part of the host plant.

**Aerial Application Equipment:** For application by fixed-wing aircraft equipped with the Hercon Pod System, place **DISRUPT BIO-FLAKE® CM** in the appropriate hoppers mounted

and apply over the tree canopy or target host plant allowing the flakes to fall into the tops of the trees or plants. Use an approved sticker such as **MICRO-TAC™** or **MICRO-TAC™ II** at 2-6 oz per acre to ensure good adherence of flakes to foliage.

For application by helicopter equipped with suitably modified application bucket, prepare a uniform suspension of **DISRUPT BIO-FLAKE® CM** in a tank-mix of water, approved sticker such as **MICRO-TAC™**, and approved thickening agent such as **MICRO-THIC™** as described below and apply over tree canopy or target host plants allowing flakes to fall down into the tops of the host plants:

**To prepare 100 gallon tank-mix to treat 145 acres at 0.6 lb product per acre:**

- 1) Add 60 gallons of clean water to a suitable mix tank.
- 2) With water vigorously mixing or recirculating, very slowly add 8 lb of **MICRO-THIC™** to vortex to form uniform mixture taking care not to form lumps.
- 3) Continue mixing and slowly add 12 gallons of **MICRO-TAC** until uniformly mixed
- 4) Continue mixing and slowly add 88 lb of **DISRUPT BIO-FLAKE® CM** until uniformly distributed in mix.
- 5) Top up water to 100 gallon mark if necessary and continue mixing or recirculating until thickening develops to the point that flakes stay in suspension without apparent settling. Do not allow mix to "over-thicken" by allowing mixer to run for prolonged periods past this point prior to applying.
- 6) Discharge mix tank into helicopter application bucket and apply at rate of 2/3 gallon of mix per acre.

#### **STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store in original container in a cool dry place until used.

Reseal

any unused pouches immediately after use and store in a cool dry place, preferably in a refrigerator or freezer. Do not store with food.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of onsite according to label use directions or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Non-refillable container. Do not refill or reuse this container. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or if allowed by state or local authorities, by burning. If burned stay out of smoke.

#### **WARRANTY AND LIMITATION OF DAMAGES**

Hercon Environmental warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the Directions for Use, which must be followed. To the extent consistent with applicable law, Hercon neither makes, nor authorizes any agent or representative to make any other warranty of fitness or of merchantability, guarantee or representation, expressed or implied concerning this material except as stated above. This warranty does not extend to the use of this product contrary to the label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Hercon Environmental. To the extent consistent with applicable law, if this product is defective, Buyer's exclusive remedy shall be the replacement of the product, or if replacement is impracticable as determined by Hercon, refund of the purchase price. To the extent consistent with applicable law, Hercon's maximum liability for breach of this warranty shall not exceed the purchase price of this product. To the extent consistent with applicable law, in no case will Hercon be liable for incidental, consequential or special damages resulting from handling, storage, use, misuse or abuse of this product.

#### **Made in the USA by:**

Aberdeen Road Company d/b/a **HERCON ENVIRONMENTAL** EPA Est. No. 8730-PA-01  
P.O. Box 435, Emigsville, PA 17318-0435 EPA Reg. No. 8730-74 Rev 080709

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