

HERCON®
DISRUPT Bio-Flake® LBAM
MATING DISRUPTANT

For Light Brown Apple Moth, *Epiphyas postvittana*

For use in all sites in all areas where LBAM has been detected—all agricultural crops, all orchards, all nurseries, all parks and forests, all residential and municipal areas, all recreational and non-crop areas.

Disrupt Bio-Flake LBAM Mating Disruptant is a behavior modifying biopesticide mating disruption product used to control infestations and damage caused by light brown apple moth, *Epiphyas postvittana*. The light brown apple moth mating disruptant pheromone is contained in biodegradable polymer flakes that provide a sustained passive release of the semiochemicals and that can be applied using specialized air or ground equipment.

ACTIVE INGREDIENTS:

E-11-Tetradecen-1-yl Acetate _____ 14.29%
(E,E)-9,11-Tetradecadien-1-yl Acetate _____ 0.71%

OTHER INGREDIENTS _____ 85.00%
TOTAL _____ 100.00 %

NET WEIGHT: 15.0 lb (6.81 kg) or 1021.5 grams of A.I.

15 lbs will treat 68 acres at 15 gm ai/ac

BATCH CODE: _____

KEEP OUT OF REACH OF CHILDREN
PRECAUTIONARY STATEMENTS

CAUTION: Avoid swallowing

Personal Protective Equipment (PPE): Applicators and handlers must wear: long-sleeved shirt, long pants, socks and shoes. 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.

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 the gloves before removing. As soon as possible wash thoroughly and change into clean clothing.

Environmental Hazards

For terrestrial uses: Except under the forest canopy, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Spray valves must be shut off when passing over surface water not under the canopy. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

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 a way that will contact workers or others persons, either directly or through drift.

Only protected handlers may be in the area during application. For any requirement specific to your State and Tribe, consult the State/Tribe 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 the label about personal protective equipment (PPE) and the 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 workers handler may be in the area during application. The requirements in this box apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow any worker entry into treated areas during the restricted-entry interval (**REI of 0 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, water, wear: coveralls, chemical resistant gloves, shoes plus socks and protective eyewear.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in the box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

READ ALL DIRECTIONS FOR USE CAREFULLY BEFORE APPLYING.

APPLICATION: The application rate of **DISRUPT MICRO-FLAKE® LBAM** is 0.22 lbs (0.1 kg) – 0.37 lbs (0.167 kg) of product per acre per application. This is equivalent to 15 grams to 25 grams of light brown apple moth pheromone A.I. per acre. Reapply **DISRUPT BIO-FLAKE® LBAM** after 75-125 days, or sooner as needed, based on local conditions and monitoring results and field scouting. Use in combination with supplemental light brown apple moth sprays where populations are extremely high. Do not exceed a total application rate of 150 grams AI (2.2 lb of product) per acre per year.

METHOD OF APPLICATION: For use on all agricultural crops, all orchards, all nurseries, all parks and forests, all residential and municipal areas, all recreational and non-crop areas.

Do not open pouches until ready to use. Do not use **DISRUPT BIO-FLAKE® LBAM** from damaged, punctured or unsealed bags. Apply the first **DISRUPT BIO-FLAKE® LBAM** treatment early in the season, just prior to the first adult moth emergence. 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 **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 with 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 light brown apple moth and secondary pests if monitoring by pheromone traps or visual damage assessments indicate such 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® LBAM**. 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® LBAM** and mix until product is uniformly suspended throughout the mixture. The mix contains 30% **DISRUPT BIO-FLAKE® LBAM** 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 substrates such as trees, bushes, utility poles, vertical surfaces, etc. in a pattern that delivers the use rate of 0.22 lbs (0.1 kg) – 0.73 lbs (0.167 kg) of product per acre per application.

Ground Application Equipment: For application using a modified blower, such as the **TURBO-TAC™ Applicator**, place **DISRUPT BIO-FLAKE® LBAM** 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 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® LBAM** 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® LBAM** 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® LBAM** in a tank-mix of water, approved sticker such as **MICRO-TAC™**, 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 400 acres at 0.22 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 **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 LBAM** 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 ¼ 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:

HERCON ENVIRONMENTAL Emigsville, PA 17318-0435

EPA Est. No. 8730-PA-01

EPA Reg. No 8730-73

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