HERCON DISRUPT II Gypsy Moth is a controlled-release pheromone dispenser formulation designed to lower incidence of gypsy moth, Lymantria dispar, mating by disrupting normal male flight orientation to females. This reduction in mating will help suppress the larval (caterpillar) population that causes damage by feeding on the leaves of hardwoods and evergreens.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

At least two weeks before adult gypsy moth emergence, apply 30.4 grams active ingredient (170 grams (6 oz) of product) per application per acre using air or ground equipment. Apply a second application if adult gypsy moth emergence is extended or delayed. An inert sticker material should be used with DISRUPT II Gypsy Moth to hold flakes on treated foliage or plant parts. The Hercon applicator equipment is specifically designed to mix the proper amount of DISRUPT II Gypsy Moth flakes and inert sticker at the time of application.

Use in such areas as forests; residential, municipal and shade tree area; recreational areas such as campgrounds, golf courses, parks and parkways; ornamental, shade trees; forest plantings; shelter belts; and rights of way and other easements.

Application must be done by or under the supervision of a qualified person to insure proper rate and method of application

DISRUPT II Gypsy Moth can be used as a pest management tool by lowering incidence of gypsy moth mating in low-level populations. In areas of heavy infestation, DISRUPT II Gypsy Moth is recommended as a follow-up to larvicidal treatments as part of an Integrated Pest Management program.

HERCON Environmental

Made in the USA by HERCON

ENVIRONMENTAL

Aberdeen Road, Emigsville, PA 17318-0467

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Hercon®

DISRUPT® II

GYPSY MOTH

MATING DISRUPTANT

Population Suppressant

ACTIVE INGREDIENT:

[Z] - 7,8 - epoxy - 2 - methyloctadecane 17.9%

INERT INGREDIENTS: 82.1%

TOTAL: 100.0%

NET WEIGHT: kg [lb.]*

KEEP OUT OF REACH OF CHILDREN

CAUTION

Read Directions and Precautionary Statements Before Use

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Precautionary Statements: Keep out of reach of children. Do not open container until ready to use.

Personal Protective Equipment (PPE): Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves and shoes plus socks. Follow manufacturers instructions for cleaning and 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 products or using the toilet.

HAZARDS TO THE ENVIRONMENT

Keep out of lakes, streams, and ponds. Do not contaminate water by cleaning of equipment or disposal of waste.

STORAGE AND DISPOSAL

Storage: Store in sealed containers in cool, dry place. Keep partially used containers tightly sealed.

Pesticide Disposal: Do not contaminate water, foods or feed by storage or disposal. Open dumping is prohibited. Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Completely empty bag into application equipment. Wrap bag and place in trash collection.

Note: Use of pheromones and limiting the use of conventional insecticides will help maintain the population of beneficial parasites and predators. This can assist in biological control of gypsy moth and other pests, and therefore compliment pest management. **DISRUPT II Gypsy Moth** can be used as a pest management tool by lowering the incidence of gypsy moth mating in low-level populations. In areas of heavy infestation, **DISRUPT II Gypsy Moth** is recommended as a follow-up to larvicidal treatments as part of an Integrated Pest Management program.

*8.5 KG [18.7 LB] of product will be sufficient to treat 50 acres at 30.4 g A.I./acre

EPA REG. NO. 8730-55
EPA . 8730-PA-01

WARRANTY: Manufacturer warrants that this material conforms to the chemical description on the label. Manufacturer neither makes nor authorizes any agent or representative to make any other warranty of fitness or of merchantability, guarantee or representation, express or implied, concerning this material. Manufacturer's maximum liability for breach of this warranty shall not exceed the purchase price of this product. Buyer and user acknowledge and assume all risks and liabilities resulting from the handling, storage and use of this material, whether in accordance with directions or not.

Valent BioSciences

Foray® 48F

Biological Insecticide
Flowable Concentrate

ACTIVE INGREDIENT:
Bacillus thuringiensis subsp. *kurstaki*,
protein toxins ..... 5.7% w/w
INERT INGREDIENTS ..... 94.3% w/w

TOTAL ..... 100.0% w/w

POTENCY:11,800 Forestry Toxic Units (FTU) of Potency per mg or 48 Billion Forestry Toxic Units per gallon. Potency units should not be used to adjust use rates beyond those specified in the Directions for Use Section.

EPA Reg. # 73049-35

EPA Est. # 33762-IA-001 List # 60177

KEEP OUT OF REACH OF CHILDREN
CAUTION

For MEDICAL and TRANSPORT Emergencies ONLY Call 24 Hours A Day 1-877-315-9819. For All Other Information Call 1-800-323-9597.

1.0 STATEMENT OF PRACTICAL TREATMENT

If on Skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

If in Eyes: Immediately flush eyes with plenty of water. Get medical attention if irritation persists.

2.0 PRECAUTIONARY STATEMENTS

2.1 HAZARD TO HUMANS (AND DOMESTIC ANIMALS)

CAUTION

Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes or clothing.

2.2 Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

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.

2.3 User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

2.4 Environmental Hazards

Do not contaminate water when disposing of equipment washwaters.

3.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

4.0 STORAGE AND DISPOSAL

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

Storage: Keep containers tightly closed when not in use. Do not store at temperatures below 0°F or above 90°F. Roll or shake the drum before dispensing.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water when disposing of equipment washwaters.

Container Disposal: Triple rinse (or equivalent), puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

5.0 NON-AGRICULTURAL USE SITE DIRECTIONS FOR USE

Directions for Use

Forest, Trees, and Shrubs

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended for aesthetic purposes or climatic modification and being grown in interior landscapes, ornamental gardens or parks, or on golf courses or lawns or grounds.

Not for use on trees being grown for sale or other commercial use, or for commercial seed production, or for the production of timber or wood products, or for research purposes except for wide-area public pest control programs sponsored by government entities, such as mosquito abatement, gypsy moth control, and mediterranean fruit fly eradication.

For Ground Application only: Do not enter treated areas without protective clothing until sprays have dried.

Do not apply this product to the non-agricultural use sites through any type of irrigation system.

Do not apply when weather conditions favor drift from treated areas.

Foray 48F is an insecticide for use against listed caterpillars (larvae) of lepidopterous insects. Close scouting and early attention to infestations is highly recommended. Larvae must eat deposits of Foray 48F to be affected. Always follow these directions:

- Treat when larvae are young (early instars) before the trees are damaged.
- Larvae must be actively feeding on treated, exposed plant parts.
- Thorough spray coverage is needed to provide a uniform deposit of Foray 48F at the site of larval feeding.
- Under heavy pest population pressure, use the higher label rates and/or consider a second application.
- If attempting to control a pest with a single spray, make the treatment when egg hatch is essentially complete, but before tree damage occurs.
- An approved spreader-sticker may be added to diluted tank mixes to improve weather-fastness of the spray deposits. Do not add a sticker to undiluted product.

After eating a lethal dose of Foray 48F, larvae stop feeding within the hour and will die within several days. Dying larvae move slowly, discolor, then shrivel, blacken and die.

Foray 48F is completely water miscible and may be applied through conventional ground or aerial equipment with quantities of water sufficient to provide thorough coverage of infested plant parts. The volume of water needed per acre will depend on weather, spray equipment and plant canopy type. Foray 48F can be mixed in any ratio with water. Mild agitation is sufficient to maintain the mixture in suspension during mixing, loading and spraying. Do not mix more Foray 48F than can be used in a 144 hour period.

Foray 48F can also be applied undiluted from aircraft for control of Spruce Budworm, Hemlock Looper, Jack Pine Budworm, and Gypsy Moth. It is recommended that rotary or other atomizers be used to provide droplet Volume Median Diameters (VMD) of 60-100 microns for needle conifers and 50-150 microns for deciduous hardwoods. After prolonged storage, undiluted Foray 48F should be recirculated once to redistribute prior to use. During loading and spraying, agitation of the undiluted product is unnecessary and should be avoided.

Foray 48F may be used to protect trees and shrubs such as in:

— Forests
— Residential, municipal, and shade tree areas
— Recreational areas such as campgrounds, golf courses, parks, and parkways
— Ornamental and shade trees
— Shelterbelts, rights of way, and other easements

6.0 FORAY 48F FOR FOREST, TREES AND SHRUBS

Crop	Pest	OZ/100 GAL/A* (Ground Equipment)	OZ/A (Aerial** Application)	BFTUs/A***
Forest, Trees and Shrubs	Bagworm	21 to 43	21 to 43	8 to 16
	Blackheaded Budworm	21 to 64	21 to 64	8 to 24
	Browntail Moth	21 to 80	21 to 80	8 to 30
	California Oakworm	11 to 43	11 to 43	4 to 16
	Douglas Fir Tussock Moth	21 to 80	21 to 80	8 to 30
	Eastern Tent Caterpillar	43 to 64	43 to 64	16 to 24
	Elm Spanworm	21 to 64	21 to 64	8 to 24
	Fall Webworm	21 to 64	21 to 64	8 to 24
	Forest Tent Caterpillar	21 to 64	21 to 64	8 to 24
	Fruittree Leafroller	11 to 21	—	4 to 8
	Green Striped Maple Worm	21 to 43	21 to 43	8 to 16
	Gypsy Moth	21 to 128	21 to 128	8 to 48
	Asian Gypsy Moth	21 to 128	21 to 128	8 to 48
	Jack Pine Budworm	21 to 64	21 to 64	8 to 24
	Mimosa Webworm	11 to 21	—	4 to 8
	Oak Leaftier	21 to 64	21 to 64	8 to 24
	Pine Butterfly	21 to 43	21 to 43	8 to 16
	Redhumped Caterpillar	11 to 43	11 to 43	4 to 16
	Saddleback Caterpillar	11 to 43	—	4 to 16
	Saddled Prominent Caterpillar	11 to 43	11 to 43	4 to 16
	Spring & Fall Cankerworm	21 to 64	21 to 64	8 to 24
	Eastern Spruce Budworm	21 to 128	21 to 128	8 to 48

Crop	Pest	OZ/100 GAL/A* (Ground Equipment)	OZ/A (Aerial** Application)	BFTUs/A***
	Western Spruce Budworm[1]	21 to 128	21 to 128	8 to 48
	Western Tussock Moth	21 to 43	21 to 43	8 to 16
	Eastern Hemlock Looper	43 to 64	43 to 64	16 to 24
	Western Hemlock Looper	43 to 64	43 to 64	16 to 24
	Eastern Pine Looper	43 to 64	43 to 64	16 to 24
	Leafrollers	21 to 43	21 to 43	8 to 16
	Buck Moth	43 to 107	43 to 107	16 to 40
	Oak Skeletonizer	21 to 43	21 to 43	8 to 16
	Tortrix	21 to 43	21 to 43	8 to 16
	Coneworm	64 to 96	64 to 96	24 to 32

NOTE: For Hemlock Looper, Eastern Pine Looper, and Coneworms, use 1 to 2 applications, diluted or undiluted, beginning at peak first instar.

*Water dilution rate for hydraulic sprayer may be varied depending on coverage. For mist blowers, mix the applicable amount (oz.) in up to 10 gallons of water.

**For diluted aerial application, use in up to 10 gallons of water depending on type and density of trees. For best results spray systems which deliver droplet size of 150 microns VMD or less should be used. Note: For Hemlock Looper and Eastern Pine Looper use 1-2 applications, beginning at peak first instar. When applying two applications, first application is at peak first instar and second application is at second instar.

***Billion Forestry Toxic Units per acre.

[1]Use rates greater than 21 ounces in Northern states for heavy populations.

7.0 NOTICE TO USER

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE CONCERNING USE OF THIS PRODUCT OTHER THAN AS INDICATED ON THE LABEL. USER ASSUMES ALL RISKS OF USE, STORAGE OR HANDLING NOT IN STRICT ACCORDANCE WITH ACCOMPANYING DIRECTIONS.

800-323-9597

04-3311/R3

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Thuricide® 76 LV

Aqueous Concentrate for Aerial or Ground Application

For Control of Ornamental, Shade Tree, and Forest Pests

SPECIMEN LABEL

ACTIVE INGREDIENT:
Bacillus thuringiensis variety *kurstaki* solids, spores, and insecticidal toxins 14.4%
INERT INGREDIENTS: 85.6%
TOTAL: 100.0%

*Equivalent to 19.0 billion International Units per quart.
The percentage active ingredient does not indicate product performance and potency measurements are not federally standardized.

KEEP OUT OF REACH OF CHILDREN

CAUTION

EPA Registration Number: 70051-72
EPA Establishment Number: 70051-CA-001

Net Contents: 5 gal., 53 gal., 250 gal., Bulk
Lot No.:
Made in U.S.A.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS

Avoid inhalation or contact with eyes or open wounds.

As a general precaution when exposed to potentially high concentrations of living microbial products such as this, all mixer/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, OR P-95.

User Safety Recommendations:
Users should:
- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

Do not contaminate water when 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.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

DIRECTIONS FOR NON-AGRICULTURAL APPLICATIONS

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended for aesthetic purposes or climatic modification and being grown in interior plantscapes, ornamental gardens or parks, or on golf courses or lawns and grounds.

Not for use on trees being grown for sale or other commercial use, or for commercial seed production, or for the production of timber or wood products, or for research purposes except wide-area public pest control programs sponsored by government entities, such as mosquito abatement, gypsy moth control, and mediterranean fruit fly eradication.

MIXING

Suspension must be shaken or stirred before use. Pour the recommended amount of THURICIDE® 76 LV into the required volume of water in the spray tank. Agitate as necessary to maintain suspension. Do not allow diluted sprays to remain in the tank for more than 72 hours. THURICIDE® 76 LV is formulated to provide desirable coverage and stickability on leaf surfaces. Additional adjuvants, spreaders, or stickers may be added but are not essential.
Do not apply this product through any type of irrigation system.

GROUND APPLICATION

Use adequate water to obtain good foliar coverage. Wet foliage but do not allow excessive run-off. Apply the recommended per acre rates of THURICIDE® 76 LV with the following suggested amounts of water:
100 gallons with high-gallonage hydraulic sprayers
10 gallons with mist blower

CERTIS

AERIAL APPLICATION

Apply Thuricide 76 LV at recommended rates by air either alone or as a spray mix diluted with water. Spray volumes of 3.2-67.2 ounces per acre are recommended. Best results are expected when Thuricide 76 LV is applied to dry foliage with a calibrated sprayer capable of obtaining droplet sizes below 300 microns and preferably in the range of 50-150 microns.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

APPLICATION RATES

Thorough coverage is essential when using Thuricide 76 LV. Use the lower rate for light to moderate infestations. Use the higher rates against heavier worm infestations.

Pest	Ounces Per Acre	Dosage BIU Per Acre	Directions
Spring Cankerworm	7-27	4-16	Apply when leaf expansion reaches 40-50% as infestation warrants. If eggs hatch over a long period of time or if reinfestation occurs, reapply about 14 days after the first application.
Fall Cankerworm	7-27	4-16	
Elm Spanworm	7-27	4-16	
Tent Caterpillar	7-27	4-16	
Gypsy Moth	14-67	8-40	
Spruce Budworm	10-67	6-40	Apply when most larvae are 3rd-4th instar. Also consider the opening of the bud cap to ensure foliage exposure.
Douglas Fir Tussock Moth	7-27	4-16	Apply after eggs have hatched and early instar larvae are feeding on exposed foliage
Jack Pine Budworm	7-27	4-16	
Bagworms	7-27	4-16	
California Oak Moth	7-27	4-16	
Western Tussock Moth	7-27	4-16	
Fruit Tree Leafroller	7-27	4-16	
Mimosa Webworm	7-27	4-16	
Redhumped Caterpillar	4-20	2-12	
Fall Webworm	4-14	2-8	
Pine Butterfly	10-40	6-24	
Whitemarked Tussock Moth	14-67	8-40	
Oakleaf Tier	14-67	8-40	
Eastern and Western Hemlock Looper	10-27	6-15	

Thuricide 76LV may be used in the following areas: forests, residential, municipal, and shade tree areas; recreational areas such as campgrounds, golf courses, parks, and parkways; ornamentals, shelterbelts, rights of way and other easements.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool place. Activity may be impaired by prolonged storage at temperatures above 90 F. Protect from freezing.

Pesticide Disposal: Wastes resulting from this product may be disposed on on-site or at an approved waste disposal facility.

Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Reuse of thoroughly cleaned container is allowable.

Metal Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, by other procedures approved by state and local authorities. Reuse of thoroughly cleaned container is allowable.

WARRANTY

Certis USA, L.L.C. warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the insect problem, condition of the crop, incompatibility with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.

THURICIDE® is a registered trademark of Certis USA, L.L.C.
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CERTIS

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