

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

August 24, 2023

Jeanette Covert Regional Regulatory Manager UPL NA Inc. 630 Freedom Business Center, Ste. 402 King of Prussia, PA 19406

Subject: Notification per PRN 98-10 – Add storage and disposal language to label

Product Name: Lambda-CY EC Insecticide EPA Registration Number: 70506-120 Application Date: July 13, 2023 Decision Number: 593475

#### Dear Jeanette Covert:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "NOTIFICATION" and placed in our records.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If you have any questions, please contact Elizabeth Andrews at 202-566-2467 or at Andrews. Elizabeth@epa.gov.

Sincerely,

Kara Welch, Acting Product Manager 03

For

Invertebrate & Vertebrate Branch 1 Registration Division (7505T) Office of Pesticide Programs

# NOTIFICATION

70506-120

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

GROUP

**3A** 

INSECTICIDE

08/24/2023

# LAMBDA-CY<sup>TM</sup> EC INSECTICIDE

For use in, on and around buildings and structures for the control of listed pests, including on lawns, ornamental trees and shrubs around residential, institutional, public, commercial, agricultural and industrial buildings; and parks, recreational areas and athletic fields.

#### **ACTIVE INGREDIENT**

Lambda-cyhalothrin

 $[1a(S^*),3a(Z)]$ -(±)-cyano-(3-phenoxyphenyl)methyl-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-

INERT INGREDIENTS.....88.6%

100.0%

Contains 1.0 lb. of active ingredient per gallon.

Contains petroleum distillates.

# KEEP OUT OF REACH OF CHILDREN WARNING/AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

### Optional standard referral statements:

[Note to reviewer, bracketed text is optional]

[See [front][back][side][inside][attached booklet][containers inside][inside booklet][inside leaflet] [booklet] [panel] for [First Aid] [and][additional] [Precautionary Statements] [and] [complete] [Directions for Use]

[See [front][back][side][inside][attached booklet][containers inside][inside booklet][inside leaflet] [booklet] [panel] inside for complete Directions For Use, including Conditions of Sale and Warranty.

## [PEEL HERE TO OPEN [PRESS TO RESEAL] ▶1

	FIRST AID			
IF SWALLOWED	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Do not give any liquid to the person.</li> <li>Do not induce vomiting unless told to do so by a poison control center or a doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>			
IFON SKIN OR CLOTHING	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
IF IN EYES	<ul> <li>Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
IF INHALED	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, give artificial respiration immediately, preferably by mouth-to-mouth.</li> <li>Call a Poison control center or doctor for treatment advice.</li> </ul>			

Note to Physician: Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Contact the Rocky Mountain Poison Center at 1-866-767-5089 for emergency medical treatment information.

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

United Phosphorus, Inc.

UPL NA Inc.

630 Freedom Business Center, Suite 402 King of Prussia, PA 19406 1-800-438-6071 Net Contents: EPA Reg. No. 70506-120 EPA Est. No. Batch/Lot#

## PRECAUTIONARY STATEMENTS

## **Hazards to Humans and Domestic Animals**

#### WARNING

May be fatal if swallowed. Harmful if inhaled or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash hands thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Remove contaminated clothing and wash before reuse.

## Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category G on an EPA chemical resistance category selection chart.

## **Applicators and Other Handlers Must Wear:**

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of any waterproof material such as Barrier Laminate, or Viton ≥14 mils
- · Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow 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.

#### ENVIRONMENT AL HAZARDS

This product is extremely toxic to fish.

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid runoff to water bodies or drainage systems. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Apply this product only as specified on this label. When making applications, care should be used to avoid household pets, particularly fish and reptile pets.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

# PHYSICAL AND CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame.

Do not use this product in or on electrical equipment due to the possibility of shock hazard.

#### **DIRECTIONS FOR USE**

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

LAMBDA-CY EC INSECTICIDE may be used for applications to maintain indoor or outdoor areas where turf and ornamentals are grown such as residential landscaped areas and non-residential landscapes around institutional, public, commercial and industrial buildings, parks, recreational areas and athletic fields

It may also be used for Structural and Perimeter Pest Control; use as a general surface, crack and crevice, or spot treatment in, on, and around buildings and structures and their immediate surroundings, and on modes of transport. Permitted areas of use include, but are not limited to THE FOLLOWING:

aircraft (cargo and other non- cabin areas only)	greenhouses (non-commercial)	pet kennels
apartment buildings	hospitals	porches
boiler rooms	hotels and motels	railcars
buses	houses	restaurants
closets	industrial buildings	storage rooms
correctional facilities	laboratories	schools
decks	livestock/poultry housing	sewers (dry)
entries	landscape vegetation	stores
factories	locker rooms	trailers
floor drains (that lead to sewers)	machine rooms	trees
food granaries	mausoleums	trucks
food grain mills	mobile homes	utility passages
food manufacturing	mop closets	vessels
processing and serving establishments	mulch	vestibules
furniture	nursing homes	warehouses
garages	offices	wineries
garbage rooms	patios	yards

All outdoor applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:

- (1) Treatment to soil or vegetation around structures;
- (2) Applications to lawns, turf, and other vegetation
- (3) Applications to building foundations, up to a maximum height of 3 feet.

Other than applications to building foundations, all outdoor applications to impervious surfaces such as sidewalks, driveways, patios, porches and structural surfaces (such as windows, doors, and eaves) are limited to spot and crack-and-crevice applications only.

Do not apply directly to sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur, except as directed by this label.

### USE DIRECTIONS - LAWNS/TURFGRASS AND ORNAMENTALS

LAMBDA-CY EC INSECTICIDE may be used for applications to maintain indoor or outdoor areas where turf and ornamentals are grown such as residential landscaped areas and non-residential landscapes around institutional, public, commercial and industrial buildings, parks, recreational areas and athletic fields. Application rates for turf and ornamental applications for LAMBDA-CY EC INSECTICIDE are lower than structural pest control rates, reflecting that treatment intervals are generally more frequent.

Applicators must ensure that they are certified in the necessary pesticide certification categories to allow application of LAMBDA-CY EC INSECTICIDE away from structures, such as to turf and ornamental plantings. Structural pest control certification categories may limit the distance away from structures for pesticide application. Consult your state extension office or pesticide regulatory officials for further information.

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 or exterior plantscapes, ornamental gardens or parks, or on lawns or grounds.

**IMPORTANT:** Time application of flowering plants during periods when pollinating insects are not present, such as early morning or late evening.

Do not apply this product through any type of irrigation system.

Do not apply this product to edible crops. Do not apply this product by aerial application.

Allow treated surfaces to dry before allowing children and pets to contact them.

Use of this pesticide adjacent to water may affect aquatic organisms. To protect these organisms, do not apply this pesticide within 25 ft. of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds.

Do not make outdoor broadcast applications to turf and ornamentals when wind speed is 15 mph or greater.

In the state of New York, do not apply within 100 feet of coastal marshes or streams that drain into coastal marshes.

MIXING INSTRUCTIONS (Turf and Ornamental Dilutions): LAMBDA-CY EC INSECTICIDE is to be diluted with water for spray application and may be used in all types of application equipment. First fill application tank with ½ - ¾ volume of water. It is suggested that the pH of the water be between 5 and 7; use a buffering agent if necessary to adjust the pH. Next slowly add LAMBDA-CY EC INSECTICIDE to the applicator tank water with maximum agitation. Finally, fill tank to desired volume and continue to agitate while making applications. If application is interrupted, agitate or resuspend spray solution before resuming sprays. Do not make up more mixture than needed at one time.

Mixing Chart for Ornamentals: Amount of LAMBDA-CY EC INSECTICIDE to add per spray tank

	Rate of LAMBDA-CY EC INSECTICIDE		
Spray Tank Volume	1.3 oz/100 gal. <sup>1</sup>	2.6 oz/100 gal. <sup>2</sup>	4.4 oz/100 gal. <sup>3</sup>
25 gals	0.33 oz	0.65 oz	1.1 oz
50 gals	0.65 oz	1.3 oz	2.2 oz
100 gals	1.3 oz	2.6 oz	4.4 oz
200 gals	2.6 oz	5.2 oz	8.9 oz∙
300 gals	4.0 oz	7.9 oz	13.3 oz

<sup>&</sup>lt;sup>1</sup>Equivalent to 3 mL/1000 sq ft (or 4.5 oz/A) when applied at 8 gal/1000 sq ft

Mixing Chart for Turfgrass Applications: Amount Lambda-Cy EC Insecticide to be added to 100 gal spray tank

Amount of Spray	Rate of LAMBDA-CY EC INSECTICIDE			
Solution Applied per 1,000 Sq. Ft. of Turf	4.4 fl oz/A	8.8 fl. oz./A	17.6 fl. oz/A	
2 gals.	5.0 oz	10.0 oz	20.0 oz	
4 gals.	2.5 oz	5.0 oz	10.0 oz	
6 gals.	1.7 oz	3.3 oz	6.7 oz	
8 gals.	1.2 oz	2.5 oz	5.0 oz	
10 gals.	1.0oz	2.0 oz	4.0 oz	

Conversion Rate: 1 Fluid ounce (fl. oz.) equals 29 milliliters (mL).

TANK MIXING (Turf and Ornamental Dilutions): LAMBDA-CY EC INSECTICIDE may be tank mixed with other currently registered pesticides unless expressly prohibited by the product label. Adjuvants such as spreader stickers, wetting agents, and penetrants may also be added. Use a small volume mixing test with the other products to confirm compatibility. If other chemicals are added to the applicator tank, LAMBDA-CY EC INSECTICIDE should be added last. Fill tank to desired volume and continue to agitate while making applications. If mixed with EC formulations, use within 24 hours.

Observe all restrictions and precautions found on labels of products in the tank mix.

<sup>&</sup>lt;sup>2</sup>Equivalent to 6 mL/1000 sq ft (or 9 ozJA) when applied at 8 gal/]000 sq ft

<sup>&</sup>lt;sup>3</sup>Equivalen to 10 mL/1000 sq ft (or 15 oz/A) when applied at 8 gal/1000 sq ft

# **COMPATIBILITY**

LAMBDA-CY EC INSECTICIDE has been found to be compatible with commonly used fungicides, miticides, liquid fertilizers, and other insecticides. Check physical compatibility using the correct proportion of products in a small jar, if local experience is unavailable.

**Note:** Although phytotoxicity testing has been conducted on a wide range of ornamental plants under various environmental conditions, and no phytotoxicity has been observed, it is possible that certain cultivars could be sensitive to the final spray solution. **UPL** recommends that a selection of ornamental plants be sprayed and observed for 7-10 days prior to treating large areas if local use experience is unavailable.

USE DIRECTIONS - ORNAMENTALS (Including Trees, Shrubs, Flowers, Evergreens, Foliage Plants and Groundcovers) In Residential Landscaped Areas and Landscaped Areas Around Institutional, public, Commercial and Industrial Buildings, Parks, Recreational Areas, and Athletic Fields

Pest	Rate of	Instructions
	LAMBDA-CY EC	
	INSECTICIDE	
	per 100 1rallons	
Ants (Including Imported	1.3-4.4 <b>fl.</b> oz.	Begin application to ornamentals before high insect pest
fire ants)		populations become established. Reapply as necessary to
Armyworms	(38-128 mL)	keep pest populations under control. Use higher rates as pest
Azalea caterpillars		pressure increases.
Aphids		Begin application to ornamentals before high insect pest
Bagworms <sup>1</sup>		populations become established. Reapply as needed for pest
Black vine weevils		control, using higher rates as pest pressure increases.
(adult)		
Boxelder bugs		For the best control, good spray coverage is essential. For
Budworms		ornamentals with waxy, hard-to-wet foliage, add a
California Oakworms		spreader-sticker at recommended rates to enhance the
Cankerworms		control of insects.
Cockroaches		
Crickets		Apply at 7- day intervals if more than one treatment is
Cutworms		required. If more frequent treatment is needed, it shouldbe
Eastern tent caterpillars		limited to spot treatments. Note that as plants grow, new
Elm leaf beetles		foliage will be unprotected until it is treated.
European sawflies		When making spot treatments, use 0.44 fl. oz. LAMBDA-
Fall webworms		CY EC INSECTICIDE per 1-2.5 gallons ofwater.
Flea beetles		
Forest tent caterpillars		Do not apply more than 0.36 lb. of the active ingredient (46 fl.
Gypsy moth larvae		oz. of concentrate) per acre per year.
Japanese beetles (adult)		
June beetles (adult)		Consult your state university or local CooperativeExtension
Lace bugs		Service office for specific pest control application timing in
Leaf-feeding caterpillars		your area.
Leafhopper		
Leafminers, (adult)		<sup>1</sup> <b>Bagworm:</b> Make application when bagworm larvaebegin to
Leaf rollers		hatch, spraying directly on the larvae. Best results will when the
Leaf skeletonizers		larvae are young.
Midges		
Mosquitoes		<sup>2</sup> Scale: Cover the plant thoroughly with LAMBDA-CY EC
Oleander moth larvae		INSECTICIDE spray. Including trunks, stems, twigs, and
Pillbugs		foliage for control of the crawler stage.
Pine sawflies		

Pest	Rate of	Instru
1 656	LAMBDA-CY	mon actions
	EC	
	INSECTICIDE	
	per 100 gallons	
Pine shoot beetles		
Pinetip moths		
Plant bugs Root		
weevils		
Sawflies		
Scale insects (crawlers)2		
Spiders		
Spittlebugs		
Striped beetles		
Striped oakwonns		
Thrips		
Tip moths		
Tussock moth larvae		
Wasps		
Broad mites	2.6-4.4 fl. oz.	
Brown softscales		
California redscales	(75-128 mL)	
(crawler)		
Clover mites		
Mealybugs		
Pine needlescales		
(crawler)		
Spider mites Whiteflies		
winternes		

Sample calculation: To prepare a mid-rate solution of LAMBDA-CY EC INSECTICIDE, mix 2.6 oz. (75mL) of concentrate in 100 gallons.

TABLE I
USE DIRECTIONS - TURFGRASS - For Lawns Around Residential, Institutional, Public,
Commercial and Industrial Buildin2s, Parks Recreational Areas and Athletic Fields

Pest	Amount of LAMBDA-	Instructions
	CYEC	
	INSECTICIDE	
Ants (Including Imported	2.9-6 mL/1,000 sq. ft.	Begin application to turf before the establishment of
fire ants)	(4.4-8.8 fl. oz.IA)	high insect pest populations and before significant
Armyworms		turf damage has occurred. Reapply as necessary to
Centipedes		keep pest populations under control. Use higher
Crickets		rates as pest pressure increases.
Cutworms		
Earwigs		Apply at 7- day intervals if more than one treatment
Fleas (adult)		is required. If more frequent treatment is needed, it
Grasshoppers		should be limited to spot treatments. For spot
Japanese beetles (adult)		treatments, use 0.44 fl. oz. of LAMBDA-CY EC
Millipedes		INSECTICIDE per 1-2.5 gals. of water.
Mites		
Mosquitoes (Adult)		Do not apply more than 0.36 lb. of active ingredient
Pillbugs		(46 fl. oz. of concentrate) per acre per year.
Sod webworms		
Sow bugs		Do not apply when turfgrass is waterlogged or when
Ticks (including species		soils are saturated with water
which transmit Lyme		
disease)		
Bluegrass billbugs	6 mL/1,000 sq. ft.	Keep children and pets off treated areas until spray
(adult)	(8.8 fl. <i>oz.I</i> A)	has dried following the application.
Black turfgrass ataenius		
(adult)		
Chiggers		
Fleas (adult)		
Grub (suppression)		
Hyperodes weevils		
(adult)		
Mole crickets (nymphs		
and young adults)		
Chinch bugs	12 mL/1,000 sq. ft.	
Mole crickets (mature	(17.6 fl. oz. <i>I</i> A)	
adults)		
(Not for use on mature		
adult mole crickets and		
chinch bugs in New		
York State)		

Sample calculation: To treat the listed turf pests at the mid-rate for LAMBDA-CY EC INSECTICIDE of 6mL/1000 sq ft, determine gal. dilution/I 000 sq. ft. needed to cover turf. For example, at 5 ga\./1,000 sq. ft., use 6 mL divided by 5 or 1.2 mL per gallon. If using a 50 gallon tank, this would be equivalent to 60 mL or 2 oz (in 50 gal. water).

Follow rates for insects as shown in Table 1, above

Insect/Insect Category	Specific Instructions
Armyworms, Cutworms, Fleas, and other Surface Insects	For best results, LAMBDA-CY EC INSECTICIDE at labeled rates in 2-5 gals. of water per 1,000 sq. ft. If significant precipitation is expected, use a spreader-sticker. Under normal conditions the addition of adjuvants is not necessary. Watering
	and mowing should be postponed for 12-24 hours for best control of surface-feeding insect pests.
Chinch Bugs, Billbugs, and other Thatch Inhabiting Insects	Apply LAMBDA-CY EC INSECTICIDE at recommended rates in 2-10 gals. of water per 1,000 sq. ft. A nonionic wetting agent, penetrant or similar adjuvant is recommended at label rates. Irrigate lightly after application with up to ½ inch of water to move LAMBDA-CY EC INSECTICIDE into the thatch layer. If irrigation is not possible, use high water application rates for optimum result
Mole Crickets, Grubs, and other Subsurface Insects	Apply LAMBDA-CY EC INSECTICIDE at labeled rates in 4-10 gals. of water per 1,000 sq. ft. A nonionic wetting agent, penetrant or similar adjuvant is strongly recommended following label rates. Use the greatest water application rates possible with your sprayer. Apply LAMBDA-CY EC INSECTICIDE to turf which is wet with dew, rain or irrigation. For best results, waterin immediately after application with ½ - ½ inch of.
Fire Ants	Use a watering can to treat individual mounds with a drench. Mix 0.44 fl. oz. of LAMBDA-CY EC INSECTICIDE per 2.5 gals. of water. Soak each mound thoroughly, and also apply in a 3 ft. diameter circle around each mound. Apply mixture in a gentle fashion, to avoid disturbing the mound; disturbing the mound may cause the ants to migrate and reduce the effectiveness of the treatment. Best results will occur if application is made in early morning or late evening hours. Apply on a monthly schedule to maintain protection.
Mosquitoes	Apply as a general spray around landscape plantings, turf and building foundations. Create a mosquito barrier in yards or other areas enclosed by landscaping by treating perimeter vegetation. For best results, apply LAMBDA-CY EC INSECTICIDE at recommended rates in 2-5 gals. of water per 1,000 sq. ft. Higher volumes applied result in better coverage and, will generally improve control.

#### USE DIRECTIONS - STRUCTURAL AND PERIMETER PEST CONTROL

For use as a general surface, crack and crevice, or spot treatment in, on and around buildings and structures and their immediate surroundings, and on modes of transport. Permitted areas of use include, but are not limited to the following:

aircraft (cargo and other non- cabin areas only)	greenhouses (non-commercial)	pet kennels
apartment buildings	hospitals	porches
boiler rooms	hotels and motels	railcars
buses	houses	restaurants
closets	industrial buildings	storage rooms
correctional facilities	laboratories	schools
decks	livestock/poultry housing	sewers (dry)
entries	landscape vegetation	stores
factories	locker rooms	trailers
floor drains (that lead to sewers)	machine rooms	trees
food granaries	mausoleums	trucks
food grain mills	mobile homes	utility passages
food manufacturing	mop closets	vessels
processing and serving establishments	mulch	vestibules
furniture	nursing homes	warehouses
garages	offices	wineries
garbage rooms	patios	yards

When making applications indoors, retreat at 21 day intervals or as necessary to maintain control.

MIXING INSTRUCTIONS: LAMBDA-CY EC INSECTICIDE is to be diluted with water for application using hand-held or power-operated application equipment. Apply as a coarse spray for crack and crevice or spot and general surface treatments. Low volume application equipment, such as the Micro-Injector® or Actisol® applicator, may also be used to make crack and crevice or spot and general surface treatments. To mix, first fill the applicator tank with the desired volume of water then add LAMBDA-CY EC INSECTICIDE. Before using, close the tank and shake it to ensure proper mixing. If the application is interrupted, always shake and re-agitate applicator tank before use is resumed. Do not mix more than can be used at one time. A paintbrush or applicator attached to a handle can be used when making a general surface treatment.

**Structural Perimeter Barrier Application Rates** 

	Rate of LAMBDA-CY EC INSECTICIDE		
	0.18 fl. oz. 0.35 fl. oz. 0.7 fl. oz. (20 mL)		
Amount of Water, Gallons	1-5	1-5	1-5
Area Covered, Sq. Ft.	800-1,600	800-1,600	800-1,600

**TANK MIXING:** Unless specifically prohibited by the product label, LAMBDA-CY EC INSECTICIDE may be tank mixed with other currently registered pesticides. Ensure compatibility by conducting a small volume mixing test with the other products. If mixed with sanitizers, LAMBDA-CY EC INSECTICIDE should be added to the tank first. If other chemicals are added to the applicator tank, LAMBDA-CY EC INSECTICIDE should be added last. If mixed with EC formulations, use within 24 hrs. Maintain continuous agitation when making applications.

LAMBDA-CY EC INSECTICIDE may be tank mixed with an Insect Growth Regulator (IGR) such as Archer Insect Growth Regulator.

When tank mixing, always observe all restrictions and precautions which appear on the labels of products used.

**FOAM APPLICATIONS:** LAMBDA-CY EC INSECTICIDE can be converted to a foam and the foam used to treat structural voids to control or prevent pests including ant, bees, termites (above ground only), wasps, or other arthropods harboring in walls, under slabs, or in other void areas.

#### RESTRICTIONS

- Allow treated surfaces to dry before allowing humans and pets to contact them.
- Do not use this product with oil.
- Do not apply this product in any room being used as living, eating, sleeping, or recovery area by patients, the elderly, or infirm when they are in the room.
- Do not apply to classrooms when in use.
- Do not apply to institutions (including libraries, sports facilities, etc.,) in the immediate area when occupants are present.
- Do not apply this product to edible growing crops or stored raw agricultural commodities used for food or feed.
- Do not allow applications to contact water inhabited by fish, such as in aquariums and ornamental fish ponds that are located in/around structures being treated.

**NOTE:** Do not use water base sprays of LAMBDA-CY EC INSECTICIDE in conduits, motor housings, junction boxes, switch boxes, or other electrical equipment because of possible shock hazard. For best results, thoroughly wash out sprayer and screen with water and detergent before using LAMBDA-CY EC INSECTICIDE. LAMBDA-CY EC INSECTICIDE has not stained or caused damage to painted or varnished surfaces, plastics, fabrics, or other surfaces where water applied alone causes no damage. However, treat a small area and allow to dry to determine whether staining will occur.

TABLE 2
USE DIRECTIONS - STRUCTURAL PESTS (HAND APPLICATION EQUIPMENT)
(See specific directions below table, for further instructions on certain pests)

Insects	Concentration of active	Rate of Dilution
	ingredient	
Ants	0.013-0.026 %	0.18 fl. oz.(5 mL)/gal.
Bedbugs (adult)		of water (0.013%)
Bees		
Beetles		0.35 fl. oz. (10 mL)/gal.
Boxelder Bugs		of water (0.026%)
Carpenter Bees		
Carpet Beetles		
Centipedes		
Cigarette Beetles		
Clover Mites		
Cockroaches <sup>1</sup>		
Confused Flour Beetles		
Crickets		
Earwigs		
Firebrats		
Fleas <sup>2</sup>		
Flies		
Lesser Grain Borers		
Millipedes		

Insects	Concentration of active ingredient	Rate of Dilution
Mosquitoes		
Red Flour Beetles		
Rice Weevils		
Saw-toothed Grain Beetles		
Silverfish		
Sowbugs		
Spiders		
Termites (above ground only)		
Ticks		
Wasps		
Cockroaches <sup>1</sup>	0.053%	0.7 fl. oz. (20 mL)/gal.
Crickets <sup>6</sup>		of water
Flies*5		
Litter Beetles <sup>3</sup> (such as		
Darkling, Hide, and Carrion)		
Mosquitoes <sup>4</sup>		
Pillbugs		
Scorpions		
Spiders <sup>6</sup>		
Spider Mites (Two-spotted,		
Spruce)		
Ticks <sup>6</sup>		

<sup>\*</sup>Not approved for use in California at the high rate.

# Follow rates for insects as shown in Table 2, above

Insects	Specific Instructions
Ants	Apply to any trails around doors and windows and other places where ant may be found, and for best results, locate and treat nests. In cases where ants are making trails indoors, apply as a residual surface treatment to areas such as baseboards, corners, around pipes, in and behind cabinets, behind and under refrigerators, sinks, furnaces and stoves, cracks and crevices. When both baits and residual surface insecticides will be used, apply the surface insecticides in cracks and crevices, along baseboards, and infested surfaces and outside barrier treatments. To eliminate honeydew-producing insects which provide an ant food source, treat perimeter landscaping. In areas not being treated by residual insecticides, use baits; also see <b>Outdoor Surfaces Use.</b>
Cockroaches, Crickets, Earwigs, Firebrats, Silverfish, and Spiders	Apply to areas where these pests hide as a coarse, low pressure spray. Pay special attention to baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, cabinets, behind and under refrigerators, furniture, sinks, furnaces and stoves, the underside of shelves, drawers and similar areas. Also pay particular attention to cracks and crevices. See <b>Outdoor Surfaces Use.</b>
Bedbugs	Floors and surfaces should be cleaned by vacuuming, then apply as a coarse, low-pressure spray to harborage areas including crevices, baseboards, loose plaster, behind bed frames and headboards, beneath beds and furniture, and to bedsprings and bed frames. Do not apply to furniture surfaces or mattresses where people will be lying or sitting. Do not treat infested bedding, but remove, place in sealed plastic bags, and

<sup>&</sup>lt;sup>1</sup> For cockroaches, the recommended rate for maintenance treatments is 0.013% and for clean-out treatments is 0.026%. For control of SEVERE infestations, use 0.053% rate.

 $<sup>^2\ \</sup>text{For outdoor}$  use only and use 0.026% rate.

<sup>&</sup>lt;sup>3</sup> For control of LIGHT beetle infestations, use 0.026% rate.

 $<sup>^{\</sup>rm 4}$  For residual control, use 0.053% rate.

 $<sup>^{5}</sup>$  Rates for flies may be increased to 0.053% when environmental conditions are severe and/or populations are high.  $^{\rm 6}$  For clean-out/severe infestations, use 0.053% rate.

Insects	Specific Instructions					
	take for laundering and drying at high temperatures.					
Bees	Make application directly to walls, ceilings, window screens, and other resting areas as					
Flies	a residual surface treatment. May be used inside residential buildings as well as in and					
Mosquitoes						
Wasps	around carports, garages, and storage sheds; also see <b>Outdoor Surface Use.</b> Use caution when treating nests of stinging insects because LAMBDA-CY EC					
vv asps	INSECTICIDE does not provide instant knockdown; protective equipment for the					
	applicator may be necessary. For most effective control, treat bee, wasp and hornet					
	nests late in the day when most insects will be in the nest. Observe nest for 2-3 days for colony to die, and retreat if necessary.					
	for colony to die, and retreat it necessary.					
	To control mosquitoes, make a general structural perimeter spray to landscape					
	plantings, turf, and building foundations. Create a mosquito barrier by treating					
	perimeter vegetation in areas such as yards or other areas which are enclosed by					
	landscaping. For best results, apply LAMBDA-CY EC INSECTICIDE at					
	recommended rates in 2-5 gal. of water per 1,000 sq. ft. In general, higher volumes					
	will result in better coverage and better control. Note that application to vegetation					
	away from structures may require additional certification, e.g. in turf ornamental					
	categories and consult your state regulatory agency for requirements.					
Carpenter Bees	Make application as a coarse spray in order to thoroughly wet wood surfaces where					
	bees have been previously active or to provide protection against further damage.					
	Apply early in the spring to keep bees from invading the wood. When bees have					
	already infested wood, make a surface application to help control embedded larvae and					
D	bees that emerge from the wood. As a maintenance treatment, apply monthly.					
Pantry Pests (i.e.,	Remove all utensils, uncovered foodstuffs (or any having original package opened),					
Carpet beetle, Cigarette beetle,	and shelf paper, then make application to cupboards, shelving, and storage areas.					
Confused flour	Before replacing any items, allow treated surfaces to dry and cover shelves with clean paper Any foodstuff which becomes contaminated with treatment solution should be					
beetle, Lesser	destroyed.					
grain borer, Red	destroyed.					
flour beetle, Rice						
weevil, and Saw-						
toothed grain						
beetle)						
Boxelder Bugs	Make application around doors and windows and other places where these pests may					
Centipedes	be found or where they may enter. Treat locations such as baseboards and storage					
Millipedes	areas. Use barrier treatments to prevent infestation as described below; and also see					
Pillbugs	Outdoor Surface Use.					
Sowbugs						
Fleas and Ticks	For control of fleas and ticks (e.g. dog ticks) apply to kennels, yards, runs, and other					
	areas where pets may spend time. For best control of I ticks, apply using a coarse fan					
	spray to vegetation brush, branches, walls, and other areas near dwellings which ticks					
	may frequent. Make treatment of entire area rather than making spot treatments.					
	Retreat as needed to maintain control. Do not apply to pasture or cropland, and do not					
	allow animals and people access to treated areas until the spray has dried. Monthly					
	applications may be made, and should start in the spring to continue until frost for					
	control of both larvae and adult ticks. In addition, treat pets with a product registered					
Cl · F"	for flea and tick control. See <b>Outdoor Surface Use</b> .					
Cluster Flies	Make application in late summer or early fall before flies are seen alighting on					
	surfaces. Pay special attention to south-facing surfaces and apply thoroughly on					
	siding, under eaves, and around windows and doors. Do not apply to runoff, but use					
	just enough dilution to adequately cover the. Vary the volume depending on the type					
	of surface being treated. If heavy rain occurs before the autumn frost, it may be					
	necessary to retreat to maintain protection. When flies emerge and become active in winter and spring, ,make interior crack and crevice and void treatments. These can					
	winter and spring, ,make interior crack and crevice and void treatments. These can					

Insects	Specific Instructions				
	help reduce infestation, especially when used with ULV or general surface application				
	in infested attics or unoccupied lofts.				
Litter Beetles	To control adult litter beetles, make application LAMBDA-CY EC INSECTICIDE to				
(Darkling, Hide,	walls and floors at cleanout. Apply before reintroduction of animals to suppress				
and Carrion	beetles that may have escaped earlier treatment and to help delay future infestation.				
Beetles) and Flies	In particular, treat areas where beetles frequently occur, such as walls, supports,				
In Animal	cages, stalls, and around feeders. For flies, make a directed application to horizontal				
Housing (Such As	surfaces and overhead areas. Allow to dry before animals are reintroduced; also see				
Poultry Houses)	Livestock/Poultry Housing Structures and Pet Kennels.				

Follow rates for insects as shown in Table 2, above

Other Areas of Application	Specific Instructions		
Within Food Handling Establishments (places other than private residences in which exposed food is held, processed, prepared, or served) including, but not limited to, areas for receiving, storage, packing (canning, bottling, wrapping, boxing), preparing foods, edible waste storage and enclosed processing	Make crack and crevice or spot treatments in and around both food and nonfood areas. Using small amounts, apply directly into cracks and crevices. Use equipment which can deliver a pin stream of insecticide, in points between different elements of construction, between equipment and floor, openings leading to voids and hollow spaces in walls, equipment and bases. Clean all food contact surfaces and equipment with an effective cleaning compound, and rinse them with potable water before using.  Spot treatments should not cover more than 20% of the treated surface.		
systems (mills, dairies, edible oils, syrups), and serving areas.	Any individual spot treatments should not be larger than 2sq. ft. Do not introduce this product into the air. Avoid contamination of food and food processing surfaces.		
Within Food Serving Areas (facilities where food is served, such as dining rooms)	Make crack and crevice or spot treatment to surfaces such as baseboards, under elements of construction, and into cracks and crevices. Do not treat surfaces which are likely to be contacted by food, and do not apply when facility is in operation or when foods are exposed. All food must be covered, or removed from the area being treated. Do not apply directly to food or allow applications to contaminate food.		
	Application to this product in the Food Areas and/or Food Serving Areas of Food Handling Establishments other than as a spot and /or crack and crevice treatment is not permitted. Limit the use of application equipment such as the Micro-Injector or Actisol applicator in food areas to crack and crevice treatment only.		
Livestock/Poultry Housing Structures and Pet Kennels	Apply as a general surface spray (including directed sprays) and /or as a crack and crevice treatment. Control is improved when interior and exterior perimeter applications are made in and around the livestock, poultry, and pet housing structures. Follow all normal cleaning practices of the structure along with applications of LAMBDA-CY EC INSECTICIDE in order to effectively control the crawling and flying insect pests listed on this label.		
	In unoccupied areas of livestock barns or housing structures, make application to floors as well as vertical, and overhead surfaces where crawling or flying insect pests are or may be found. Cover all feeders, waterers, and feed prior to application to keep them from being contaminated. Application to milk rooms or feed rooms is prohibited. Pay attention in animal areas to stanchions, pipes, windows and doors, and areas where insect pests hide or congregate. Apply to south facing walls, foundation perimeters to help prevent interior infestations of		

flying and crawling insects. In poultry houses, apply to floor area for birds grown on litter or to walls, posts, and cage framing for birds grown in cages. Also apply into cracks and crevices found around insulation. Make another application after each grow out or sanitization procedure. Improve indoor control by making perimeter treatments around the outside of building foundations for the prevention of immigrating adult beetles. Make a uniform band application 1-3 ft. up and 2-6 ft. out from foundation. Prevent the development of background populations by instituting a year-round treatment program Do not make interior applications of LAMBDA-CY EC INSECTICIDE in areas of facility where animals other than cattle or calves are present. Allow treated surfaces to completely dry before restocking the facility. **DO NOT** make applications to any animal feedstuffs, water, or watering equipment. DO NOT contaminate any animal food, feed, or water in and around livestock, poultry, or pet housing when making applications. **Outdoor Surfaces Use** For control of ants, bees, centipedes, cockroaches, crickets, fleas, flies, millipedes, mosquitoes, scorpions, sowbugs, pillbugs, spiders, termites (above ground only), ticks, wasps, and other similar perimeter arthropod pests. Apply with either hand or power application equipment as a residual treatment to ornamental plants next to foundations of buildings and to surfaces of buildings, porches, screens, window frames, eaves, patios, garages, refuse dumps, and other similar areas where these insect pests are active. For termites, this type of application is not intended as a substitute for soil treatment labeled termiticides or mechanical alternation to control subterranean termites, or fumigation for extensive infestation of drywood termites or other wood-infesting insects. The purpose of such applications of LAMBDA-CY EC INSECTICIDE for termites is to kill workers or winged reproductive forms which may be present in treated channels at the time of treatment. Such applications are not a substitute for mechanical alteration, soil treatment of foundation treatment, but are merely a supplement. This product is not recommended as a sole protection against termites. For active termite infestations, get a professional inspection. **Structural Perimeter Barrier** Applying a continual band of insecticide around a building foundation **Treatments** and around windows, doors, service line entrance, eaves, vents, and

Applying a continual band of insecticide around a building foundation and around windows, doors, service line entrance, eaves, vents, and other areas can greatly reduce the potential for entry by crawling pests. To facilitate application, remove debris and leaf litter from next to the foundation, cut back vegetation and branches that touch the foundation, and move or rake back rocks, deep mulch, or other potential pest harborage next to the foundation. Apply the band up to 10 ft. wide around the structure (or according to state regulations governing commercial pest control) and upwards along the foundation to 3 ft. and around windows, doors, and roof overhangs. Apply as a coarse spray to thoroughly and uniformly wet the foundation and/or band area so that the insecticide will reach the soil or thatch level where pests may be active.

Amount of concentrate is dependent upon pest species (see pest Table

2 and comments), infestation levels, and service interval desired. If
required due to heavy vegetation or landscaping materials, use more
than 5 gallons water per 800-1600 square feet.

#### Some Typical Dilutions For Structural Perimeter Barrier Applications

Application	Application Rate fl. oz. (mL) of	fl. oz. (mL) of LAMBDA-CY EC INSECTICIDE to Dilute in Water According to Spray Tank Volume			
Volume-	LAMBDA-CY EC				
Gal. of Solution per 1,000 sq. ft.	INSECTICIDE per 1,000 sq. ft.	5 gal.	10 gal.	50 gal.	
1 gal.	0.18 fl. oz. (5 mL)	0.88 fl. oz. (26 mL)	1.8 fl. oz. (51 mL)	8.8 fl. oz. (255 mL)	
	0.35 fl. oz. (10 mL)	1.8 fl. oz. (51 mL)	3.5 fl. oz. (102 mL)	17.6 fl. oz. (510 mL)	
	0.7 fl. oz. (20 mL)	3.5 fl. oz. (102 mL)	7 fl. oz. (204 mL)	35 fl .oz.((1020 mL)	
2 gal.	0.18 fl. oz. (5 mL)	0.44 fl. oz. (13 mL)	0.88 fl. oz. (26 mL)	4.4 fl. oz. (128 mL)	
	0.35 fl. oz. (10 mL)	0.88 fl oz. (26 mL)	1.8 fl. oz. (51 mL)	8.8 fl. oz. (255 mL)	
	0.7 fl. oz. (20 mL)	1.8 fl. oz. (51 mL)	3.5 fl. oz. (102 mL)	17.6 fl. oz. (510mL)	
5 gal.	0.18 fl. oz. (5 mL)	0.18 fl. oz. (5 mL)	0.4 fl. oz. (12mL)	1.8 fl. oz. (51 mL)	
	0.35 fl. oz. (IO mL)	0.35 fl. oz. (10 mL)	0.8 fl. oz. (24 mL)	3.5 fl. oz. (102 mL)	
	0.7 fl. oz. (20 mL)	0.7 fl. oz. (20 mL)	1.6 fl. oz. (42 mL)	7 fl. oz. (204 mL)	

Sample calculation to prepare the mid-rate of LAMBDA-CY EC INSECTICIDE at a volume of 5 gal/1000 sq. ft.: Mix 3.5 oz. of concentrate in 50 gallons of water.

The percent active ingredient in the finished LAMBDA-CY EC INSECTICIDE dilution can be calculated as follows:

Take the mL needed to be added times 11.4% (the% active ingredient in the concentrate), divided by the gal. finished dilution, times 3,785 mL/gal. to yield the% active in dilution. (Sample calculation:

For 3.5 oz. in 50 gal. of water, use the chart above to determine that this rate is equivalent to I02 mL; I02 times 11.4% = 1163; 50 gal. times 3,785 is 189250. Divide 1163 by 189250 = 0.006% active ingredient in the tank dilution).

# STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area.

**Pesticide Disposal:** Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according tolabel instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**Container Handling:** [less than 5 gallons]

Nonrefillable container. Do not reuse or refill this container.

Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

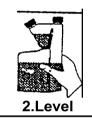
**Container Handling:** [greater than 5 gallons]

## Nonrefillable container. Do not reuse or refill this container.

Clean container promptly after emptying. **Triple Rinse as follows**: Empty remaining contents into application equipment or a mix tank. Fill the container ½ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows**: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

# [For the 1 qt Tip N Pour package] CONTAINER USE DIRECTIONS:







- 1. Remove the measuring chamber cap and induction seal. Replace cap and securely tighten. Tip container until liquid fills measuring chamber.
- 2. Return container to level position. No adjustment is needed.
- 3. Remove measuring chamber cap and dispense into proper application equipment.

For multiple dose measuring: remove fill chamfer cap and dispense according to markings on side ofbottle.

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