

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

May 19, 2015

Ms. Kristin Hood Central Garden & Pet Company 1501 E. Woodfield Road, Suite 200W Schaumburg, IL 60173

Subject: Notification per PRN 98-10 – Adding an alternate brand name and various

marketing claims; clarifying units of measurement; updating emergency numbers,

warranty, and contact information

Product Name: Equil Lambda 9.7 CS Insecticide

EPA Registration Number: 89459-51 Application Date: May 1, 2015 Decision Number: 504025

Dear Ms. Hood:

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 will be placed in our records. The alternate brand name "Lambda 9.7 CS" has been added to the product record.

If you have any questions, you may contact Julie Chao at (703) 308-8735 or via email at <a href="mailto:chao.julie@epa.gov">chao.julie@epa.gov</a>.

Sincerely,

Kable Bo Davis, Product Manager 03 Invertebrate & Vertebrate Branch 1 Registration Division (7505P) Office of Pesticide Programs

My Sun De for

Notification Label Acceptable v.20150320

# **Equil Lambda 9.7 CS Insecticide**

Alternate brand name: Lambda 9.7 CS

With EnduraCap™ Technology [Optional Marketing Language]

Controls: Ants, Cockroaches, Crickets, Flies, Litter Beetles (adults/immature stages such as Darkling, Hide, and Carrion), Mosquitoes, Spiders, Ticks and other listed insects

For Use in: Food Handling Establishments, Food Serving Areas, Livestock/Poultry Housing Structures, Lawns/Grass and Ornamentals

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.

Refer to the label for additional use sites and pests controlled

Contains lambda-cyhalothrin, the active ingredient used in Demand<sup>®</sup>.

GROUP 3 INSECTICIDE

ACTIVE INGREDIENT:
Lambda-cyhalothrin¹:

# KEEP OUT OF REACH OF CHILDREN CAUTION

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

For Chemical Spill, Leak, Fire, or Exposure, Call: CHEMTREC 1-800-424-9300 For Medical Emergencies Only, Call: 866-257-4118

EPA Reg. No. 87276-189459-51 EPA Est. No.

Equil Lambda 9.7 CS Insecticide is not manufactured or distributed by Syngenta Crop Protection, Inc., seller of Demand<sup>®</sup>.

NOTIFICATION

89459-51

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:

5/19/2015

Net Contents:

<sup>&</sup>lt;sup>1</sup>Synthetic pyrethroid

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling, and before eating, drinking, chewing gum or using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

	FIRST AID
If on skin or	Take off contaminated clothing.
clothing:	Rinse skin immediately with plenty of water for 15-20 minutes.
	Call a poison control center or doctor for treatment advice.
If in eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.
	Remove contact lenses, if present, after the first 5 minutes, then continuing rinsing
	eye.
	Call a poison control center or doctor for treatment advice.
If swallowed:	Call a poison control center or doctor immediately for treatment advice.
	Do not give any liquid to the person.
	Do not induce vomiting unless told to do so by the poison control center or doctor.
	Do not give anything by mouth to an unconscious person.
If inhaled:	Move person to fresh air.
	If person is not breathing, call 911 or an ambulance, then give artificial respiration,
	preferably mouth-to-mouth if possible.
	Call a poison control center or doctor for further treatment advice.
· •	container or label with you when calling a poison control center or doctor, or going for any also contact 1-866-257-4118-800-347-8272 for emergency medical treatment

#### **ENVIRONMENTAL HAZARDS**

This product is extremely toxic to fish and other aquatic organisms. Do not contaminate water when cleaning equipment or disposing of equipment washwater. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. 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 CHEMCIAL HAZARDS

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.

**IMPORTANT**: 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 lawns or grounds.

This product is RESTRICTED for use in New York State.

information.

#### PERIMETER PEST CONTROL

This product is for use as a general surface (nonfood/nonfeed areas), crack and crevice, or spot treatment in, on, and around buildings and structures and their immediate surroundings, and on modes of transport. Areas of use include, industrial buildings, houses, apartment buildings, laboratories, buses, greenhouses (non-commercial), stores, warehouses, vessels, railcars, trucks, trailers, aircraft (cargo and other non-cabin areas only), schools, nursing homes, hospitals, restaurants, hotels, livestock/poultry housing, pet kennels, food granaries, food grain mills and food manufacturing, processing, and servicing establishments.

Nonfood/nonfeed areas of food/feed handling establishments include garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets, and storage (after canning or bottling).

For indoor applications, this product can be reapplied at 21-day intervals if necessary.

## **Mixing Instructions**

Dilute this product with water for application using hand-held or power-operated application equipment as a coarse spray for crack and crevice or spot and general surface (non-food/nonfeed areas only) treatments. Application equipment that delivers low volume treatments, such as the Micro-Injector® or Actisol® applicator, may also be used to make crack and crevice or spot and general surface treatments. Fill applicator tank with the desired volume of water and add this product. Close and shake before use in order to ensure proper mixing. Shake or re-agitate applicator tank before use if application is interrupted. Mix only amount of treatment volume as required. This product may be applied by using a paint brush or other porous applicator attached to a handle as a general surface treatment.

# **Tank Mixing**

This product may be tank mixed with other currently registered pesticides unless expressly prohibited by the product label. A small volume mixing test with the other products is recommended to ensure compatibility. If other chemicals are added to the applicator tank, add this product last. If mixed with EC formulations, use within 24 hours. Fill tank to desired volume and continue to agitate while making applications.

This product may be tank mixed with an Insect Growth Regulator (IGR). Observe all restrictions and precautions which appear on the labels of these products.

#### **Foam Applications**

This product may be converted to a foam and the foam used to treat structural voids to control or prevent pests including ants, bees, termites (above ground only), wasps, or other arthropods harboring in walls, under slabs, or in other void areas.

## RATES FOR PESTS (HAND APPLICATION EQUIPMENT)

Pests	Dilution Rate (Concentration of AI)	Specific Use Directions
Ants	0.2 fl. oz.	Ants: Apply to any trails around doors and windows and other
Bed Bugs (adult)	(6 mL)	places where ants may be found. Locate and treat nests. Where
Bees	to	ants are trailing inside, apply as a residual surface treatment to
Boxelder Bugs	0.4 fl. oz.	active areas such as baseboards, corners, around pipes, in and
Carpenter Bees	(12 mL) per	behind cabinets, behind and under refrigerators, sinks, furnaces
Carpet Beetles	gallon of water	and stoves, cracks and crevices. When combining baits and
Centipedes		residual surface insecticides, apply surface insecticides in cracks
Cigarette Beetles	(0.015-0.030%	and crevices, along baseboards, and infested surfaces and
Clover Mites	AI)	outside barrier treatments. Use baits in other areas that are
Cockroaches <sup>1</sup>		untreated by residual insecticides; also see Outdoor Surfaces
Confused Flour Beetles		Use.
Crickets		

	Dilution Data	
Doots	Dilution Rate	Considia Has Directions
Pests	(Concentration of AI)	Specific Use Directions
Forwige	Of Al)	Bed Bugs: Clean floors and surfaces by vacuuming. Apply as a
Earwigs Firebrats		
Fleas <sup>2</sup>		coarse, low-pressure spray to harborage areas including crevices,
		baseboards, loose plaster, behind bed frames and headboards,
Flies		beneath beds and furniture, and to bed springs and bed frames.
Lesser Grain Borers		Do not apply to furniture surfaces or mattresses where people will
Millipedes		be laying or sitting. Infested bedding should not be treated, but
Mosquitoes Red Flour Beetles		should be removed, placed in sealed plastic bags, and taken for
Rice Weevils		laundering and drying at high temperatures.
Saw-toothed Grain Beetles		Cockroaches, Crickets, Earwigs, Firebrats, Silverfish, and
Silverfish		Spiders: Apply as a coarse, low pressure spray to areas where
Sowbugs		these pests hide, such as baseboards, corners, storage areas,
Spiders		closets, around water pipes, doors and windows, attics and eaves,
Ticks		cabinets, behind and under refrigerators, sinks, furnaces and
Wasps		stoves, the underside of shelves, drawers and similar areas. Pay
Cockroaches <sup>1</sup>	0.80 fl. oz.	particular attention to cracks and crevices; also see <b>Outdoor</b>
Crickets <sup>6</sup>	(24 mL) per	Surfaces Use.
Flies <sup>5</sup>	gallon of water	
Litter Beetles <sup>3</sup> (adults/	ganorrorwator	Bees, Flies, Mosquitoes, and Wasps: Apply directly to walls,
immature stages such as	(0.060% AI)	ceilings, window screens, and other resting areas as a residual
Darkling, Hide, and	(0.00070711)	surface treatment. May be used inside residential buildings as
Carrion)		well as in and around carports, garages, and storage sheds; also
Mosquitoes <sup>4</sup>		see Outdoor Surfaces Use. Use caution when treating nests of
Pillbugs		stinging insects as this product does not provide instant
Scorpions		knockdown. Protective equipment for the applicator may be
Spiders <sup>6</sup>		required. Treat bee, wasp and hornet nests late in the day when
Spider Mites (Two-spotted,		most insects will be present. Allow 2-3 days for the colony to die
Spruce)		and repeat after 21 days, if necessary.
Ticks <sup>6</sup>		
		Carpenter Bees: Apply coarse spray to thoroughly wet wood
		surfaces where bees have been previously active or to provide
		protection against further damage. Apply early in the spring to
		prevent bees from invading wood. When bees have infested
		wood, surface applications can help control embedded larvae and
		bees that emerge from the wood.
		Pantry Pests (i.e., Carpet Beetles, Cigarette Beetles, Confused
		Flour Beetles, Lesser Grain Borers, Red Flour Beetles, Rice
		Weevils, and Saw-toothed Grain Beetles): Apply to cupboards,
		shelving, and storage areas. Remove all utensils, uncovered
		foodstuffs (or any having original package opened), and shelf
		paper before making application. Allow treated surfaces to dry
		and cover shelves with clean paper before replacing any utensils,
		foodstuffs, or other items. Any foodstuffs accidentally
		contaminated with treatment solution should be destroyed.
		Boxelder Bugs, Centipedes, Millipedes, Pillbugs, and
		Sowbugs: Apply around doors and windows and other places
		where these pests may be found or where they may enter
		premises. Treat baseboards, storage areas, and other locations.
		Apply treatments to prevent infestation as described below; also
		see Outdoor Surfaces Use.
		COO CALABOI CALIACOC COO.
		Fleas and Ticks: To control nuisance fleas and ticks (e.g., dog
		ticks) apply to kennels, yards, runs, and other areas where pets
		may frequent. To control ticks, apply using a coarse fan spray to
		vegetation brush, branches, rock walls, and other areas near
		habitation where ticks may harbor or frequent. Treat entire area
		rather than making spot treatments, and retreat as necessary to
1	1	5 ,

Pests	Dilution Rate (Concentration of AI)	Specific Use Directions
		maintain control. Do not apply to pasture or cropland, and do not allow animals and people access to treated areas until the deposit has dried. Applications can begin in the spring and can continue until frost to control both larvae and adult ticks; also see <b>Outdoor Surfaces Use</b> .
		Cluster Flies: Apply in late summer or early fall before flies are observed alighting on surfaces. Apply thoroughly on siding, under eaves, and around windows and doors, paying particular attention to south-facing surfaces, but do not allow runoff to occur. Heavy precipitation prior to frost may require retreatments to maintain protection. In winter and spring when flies become active and are emerging, interior crack and crevice and void treatments can help reduce the infestation, along with ULV or general surface application in infested attics or unoccupied lofts.
		Litter Beetles (Darkling, Hide, and Carrion Beetles) and Flies In Animal Housing (Such As Poultry Houses): To control adult litter beetles, apply this product to walls and floors at cleanout, before reintroduction of animals. This will suppress beetles that escaped earlier treatment and will help delay onset of future infestations. Pay attention to areas where beetles frequently occur, such as walls, supports, cages, stalls, and around feeders. To help control flies, apply a directed application to horizontal surfaces and overhead areas and allow to dry before reintroduction of animals; also see Livestock/Poultry Housing Structures and Pet Kennels.
Termites (above ground only)	0.80 fl. oz. (24 mL) per gallon of water (0.060% AI)	This product may be used on termites to kill workers or winged reproductive forms which may be present in treated channels at the time of treatment. These applications are not a substitute for mechanical alteration to control subterranean termites, soil treatment labeled termiticides, or fumigation for extensive infestation of drywood termites or other wood-infesting insects, but are considered supplemental. This product is not recommended as sole protection against termites. For active termite infestations, get a professional inspection.

<sup>1</sup>For cockroaches, the recommended rate for maintenance treatments is 0.015% and for clean-out treatments is 0.030%. For control of severe infestations, use 0.060% rate.

# **Application Within Food Handling Establishments**

For 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 systems (mills, dairies, edible oils, syrups), and serving areas: Use as a crack and crevice or spot treatment in and around both food and nonfood areas. Apply in small amounts directly into cracks and crevices, using equipment capable of delivering 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. Food contact surfaces and equipment should be cleaned with an effective cleaning compound and rinsed with potable water before using.

<sup>&</sup>lt;sup>2</sup>For outdoor use only and use 0.030% rate.

<sup>&</sup>lt;sup>3</sup>For control of LIGHT beetle infestations, use 0.030% rate.

<sup>&</sup>lt;sup>4</sup>For residual control, use 0.060% rate.

<sup>&</sup>lt;sup>5</sup>In all states except California, rates for flies may be increased to 0.060% when environmental conditions are severe and/or populations are high.

<sup>&</sup>lt;sup>6</sup>For clean-out/severe infestations, use 0.060% rate.

Limit individual spot treatments to an area no larger than 20% of the treated surface. Individual spot treatments may not exceed two sq. ft. Take extreme care that the product is not introduced into the air. Avoid contamination of food and food processing surfaces.

# **Application Within Food Serving Areas**

For facilities where foods are served, such as dining rooms. Apply as a crack and crevice or spot treatment to selective surfaces such as baseboards, under elements of construction, and into cracks and crevices. Avoid treating surfaces likely to be contacted by food. (Do not apply when facility is in operation or foods are exposed.) Food must be covered or removed in area being treated. Do not apply directly to food or allow applications to contaminate food.

**NOTE:** Application of 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. Use of application equipment such as the Micro-Injector® or Actisol® applicator in food areas should be limited to crack and crevice treatment only.

# **Livestock/Poultry Housing Structures and Pet Kennels**

Apply as a general surface (including directed sprays) and/or crack and crevice treatment. With the exception of cattle and calves that may be present, only apply this product to livestock barns or housing structures when unoccupied by animals. Make interior and exterior perimeter applications in and around the livestock, poultry, and pet housing structures. Normal cleaning of the structure must also be done along with applications of this product to effectively control the crawling and flying insect pests listed in the table.

This product may be used in unoccupied areas of livestock barns or housing structures. Apply to floors, vertical, and overhead surfaces where crawling or flying insect pests are or may be present. Feeders, waterers, and feed carts should be covered before application to prevent contamination. Do not apply to milk rooms or feed rooms. Pay attention to animal areas including stanchions, pipes, windows and doors, and areas where insect pests hide or congregate. Exterior applications to south facing walls and foundation perimeters can help prevent interior infestations of flying and crawling insect pests.

For poultry houses, apply to floor area (birds grown on litter) or to walls, posts, and cage framing (birds grown in cages). Application should also be made into cracks and crevices around insulation. Reapply after each growout or sanitization procedure. Indoor control can be enhanced by making perimeter treatments around the outside of building foundations to prevent immigrating adult beetles. Apply in a uniform band 1 - 3 ft. up and 2 - 6 ft. out from foundation. Maintaining a year-round treatment program will prevent background populations from reaching problem levels.

#### **RESTRICTIONS:**

- **DO NOT** make applications of this product in areas where animals are present in the facility. 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. Remove all exposed food and cooking utensils. Cover all food handling surfaces or wash thoroughly after treatment and before use. Do not use on edible crops.

#### **Perimeter Treatments**

Apply a continual band of insecticide around building foundations and around windows, doors, service line entrances, eaves, vents, and other areas to reduce the potential for entry by crawling pests. Before 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 and comments), infestation levels, and service interval desired.

**Rate Table For Perimeter Barrier Applications** 

Application Rate: Fl. oz. (mL) of Equil Lambda 9.7 CS Insecticide	Gallons of Water <sup>1</sup>	Area of Coverage (sq. ft.)	
0.2 fl. oz. (6 mL)	1-5 gallons	800-1600 sq. ft	
0.4 fl. oz. (12 mL)	1-5 gallons	800-1600 sq. ft.	
0.8 fl. oz. (24 mL)	1-5 gallons	800-1600 sq. ft.	

Application volume may be greater than 5 gallons/800-1600 sq. ft. if required under heavy vegetative or landscaping materials in order to obtain desired coverage.

**Examples Of Dilutions For Perimeter Barrier Applications** 

	Application	FI. Oz. (mL) of Equil Lambda 9.7 CS Insecticide Dilute in Water According to Spray Tank Volume		
Application Volume Gallons of Solution per 1,000 sq. ft.	Rate Fl. Oz. (mL) of Equil Lambda 9.7 CS Insecticide per 1,000 sq. ft.	5 gallonos	10 gallons	50 gallons
1 gal. per 1,000 sq. ft.	0.2 fl. oz. (6 mL) 0.4 fl. oz. (12 mL) 0.8 fl. oz. (24 mL)	1 fl. oz. (30 mL) 2 fl. oz. (60 mL) 4 fl. oz. (120 mL)	2 fl. oz. (60 mL) 4 fl. oz. (120 mL) 8 fl. oz. (240 mL)	10 fl. oz. (300 mL) 20 fl. oz. (600 mL) 40 fl. oz. (1200 mL)
2 gal. per 1,000 sq. ft.	0.2 fl. oz. (6 mL) 0.4 fl. oz. (12 mL) 0.8 fl. oz. (24 mL)	0.5 fl. oz. (15 mL) 1 fl. oz. (30 mL) 2 fl. oz. (60 mL)	1 fl. oz. (30 mL) 2 fl. oz. (60 mL) 4 fl. oz. (120 mL)	5 fl. oz. (150 mL) 10 fl. oz. (300 mL) 20 fl. oz. (600 mL)
5 gal. per 1,000 sq. ft.	0.2 fl. oz. (6 mL) 0.4 fl. oz. (12 mL) 0.8 fl. oz. (24 mL)	0.2 fl. oz. (6 mL) 0.4 fl. oz. (12 mL) 0.8 fl. oz. (24 mL)	0.4 fl. oz. (12 mL) 0.8 fl. oz. (24 mL) 1.6 fl. oz. (48 mL)	2 fl. oz. (60 mL) 4 fl. oz. (120 mL) 8 fl. oz. (240 mL)

**Example calculation:** To apply the mid-rate of this product at a volume of 5 gal./1,000 sq. ft., mix 4 fl. oz. of concentrate in 50 gallons of water. The percent active ingredient in the finished product dilution can be calculated with the following formula:

mL needed to add times 9.7% active in concentrate, divided by gallons finished dilution times 3785 mL/gal. = % active in dilution. (Example: 4 oz. in 50 gallons is 120 mL times 9.7 equals 1164, and 50 gallons times 3785 is 189,250. Dividing 1164 by 189,250 equals 0.006% active in the tank dilution.)

**NOTE**: Do not use water base sprays of this product in conduits, motor housings, junction boxes, switch boxes, or other electrical equipment because of possible shock hazard. Thoroughly wash out sprayer and screen with water and detergent before using this product. This product 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.

# LET TREATED SURFACES DRY BEFORE ALLOWING HUMANS AND PETS TO CONTACT SURFACES.

#### RESTRICTIONS:

- 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 institutions (including libraries, sports facilities, etc.,) in the immediate area when occupants are present.
- DO NOT apply to classrooms when in use.
- 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.

# LAWNS/TURFGRASS AND ORNAMENTALS

This product 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 (Including trees, shrubs, flowers, evergreens, foliage plants and groundcovers). Application rates for turf and ornamentals are lower than structural pest control rates, reflecting that treatment intervals are more frequent.

Applicators must ensure that they are certified in the necessary pesticide certification categories to allow application of this product 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.

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

## **RESTRICTIONS:**

- **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.
- 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 ft. of coastal marshes or streams that drain into coastal marshes.

## **Mixing Instructions**

This product is to be mixed with water and may be used in all types of standard application equipment. Fill applicator tank with the desired volume of water and add this product. It is suggested that the water be 5 - 7 pH. Adjust water pH with a buffering agent if necessary. Slowly add this product to applicator tank water with maximum agitation. Close and shake or reagitate applicator tank before use if application is interrupted. Make up only amount of treatment volume as required.

#### **Tank Mixing**

This product may be tank mixed with other currently registered pesticides unless expressly prohibited by the product label. A small volume mixing test with the other products is recommended to ensure compatibility. If other chemicals are added to the applicator tank, add this product laast. 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 which appear on the labels of these products.

#### **INSECT CONTROL on ORNAMENTAL PLANTS**

Use this product to control the pests listed in the table below in such areas as residential landscaped areas and landscaped areas around institutional, public, commercial and industrial buildings, parks, recreational areas, and athletic fields (including trees, shrubs, flowers, evergreens, foliage plants and groundcovers).

**NOTE:** While phytotoxicity testing has been carried out on a wide range of ornamental plants under various environmental conditions, and no phytotoxicity has been observed, certain cultivars may be sensitive to the final spray solution.

It is advised to prespray a selection of ornamental plants and observe them for 7-10 days prior to treating large areas if local use experience is unavailable.

## **RESTRICTIONS:**

• DO NOT apply more than 0.36 lbs. of the a.i. (52.4 fl. oz. of concentrate) per acre per year.

# TANK DILUTION RATES FOR ORNAMENTAL PESTS

Pest	Amount Of Equil	Application Instructions
	Lambda 9.7 CS	
	Insecticide	
Ants (Including Imported Fire	1.5 – 5.0 fl. oz.	Application to ornamentals should be started
Ants)	per 100 gallons	prior to the establishment of high insect pest
Armyworms		populations.
Azalea Caterpillars	or	
Aphids		Apply at 7-day intervals if retreatment is
Bagworms	44 - 148 mL per	necessary. Limit more frequent treatment to
Black Vine Weevils (adults)	100 gallons	spot treatments.
Boxelder Bugs		
Budworms		Good spray coverage is necessary to provide
California Oakworms		the most effective level of control. Addition of a
Cankerworms		spreader-sticker at specified rates may enhance
Cockroaches		the control of insects on certain species of
Crickets		ornamentals having waxy, hard-to-wet foliage.
Cutworms		
Eastern Tent Caterpillars		For spot treatments use 0.50 fl. oz. of this
Elm Leaf Beetles		product per 1 - 2.5 gallons of water.
European Sawflies		
Fall Webworms		Consult your state university or local
Flea Beetles		Cooperative Extension Service office for specific

Pest	Amount Of Equil Lambda 9.7 CS Insecticide	Application Instructions
Forest Tent Caterpillars Gypsy Moth Larvae Japanese Beetles (adults) June Beetles (adults) Lace Bugs Leaf-feeding Caterpillars Leafhoppers Leafminers (adults) Leafrollers Leaf Skeletonizers Midges Mosquitoes Oleander Moth Larvae Pillbugs Pine Sawflies Pine Shoot Beetles Pinetip Moths Plant Bugs Root Weevils Sawflies Scale insects (Crawlers) Spiders Spittlebugs Striped beetles Striped oakworms Thrips Tip moths Tussock Moth Larvae Wasps		Scale: Thoroughly cover the plant with spray, including trunks, stems, twigs, and foliage for control of scale insects (crawler stage).  Bagworm: Apply this product when bagworm larvae begin to hatch. Spray directly on the larvae. Application is the most effective when the larvae are young.
Broadmites Brown Soft Scales California Red Scales (Crawlers) Clover Mites Mealybugs Pine Needle Scales (Crawlers) Spider Mites Whiteflies	3 - 5 fl. oz. per 100 gallons or 88 -148 mL per 100 gallons	

# **Equil Lambda 9.7 CS Insecticide Mixing Chart for Ornamental Insect Pest Control**

(Equil Lambda 9.7 CS Insecticide to add per spray tank)

Rate of Equil Lambda 9.7 CS Insecticide	25 Gallons	50 Gallons	100 Gallons	200 Gallons	300 Gallons
1.5 fl. oz. <sup>1</sup>	0.4 fl.oz.	0.8 fl. oz.	1.5 fl. oz.	3.0 fl. oz.	4.5 fl. oz.
3 fl. oz. <sup>2</sup>	0.8 fl.oz.	1.5 fl. oz.	3.0 fl. oz.	6.0 fl. oz.	9.0 fl. oz.
5 fl. oz. <sup>3</sup>	1.3 fl. oz.	2.5 fl. oz.	5.0 fl. oz.	10.0 fl. oz.	15.0 fl. oz.

<sup>&</sup>lt;sup>1</sup> Equivalent to 3.5 mL per 1,000 sq. ft. (5 oz. per acre) when applied at 8 gallons per 1,000 sq. ft. <sup>2</sup> Equivalent to 7.0 mL per 1,000 sq. ft. (10 oz. per acre) when applied at 8 gallons per 1,000 sq. ft.

#### LAWN/TURFGRASS INSECT PEST CONTROL

Use this product to control the pests listed in the table below around such areas as residential, institutional, public, commercial and industrial buildings, parks, recreational areas and athletic fields.

#### **RESTRICTIONS:**

- KEEP CHILDREN AND PETS OFF TREATED AREAS UNTIL SPRAY HAS DRIED FOLLOWING APPLICATION.
- **DO NOT** apply when turfgrass is waterlogged or when soils are saturated with water (i.e. will not accept irrigation).
- DO NOT apply more than 0.36 lbs. of a.i. (52.4 fl. oz. of concentrate) per acre per year.

#### RATES FOR LAWN AND TURFGRASS PESTS

Pest	Amount Of Equil	Application Instructions
	Lambda 9.7 CS Insecticide*	
Ants (Including Imported Fire	3.4 – 7.0 mL per	Application to turf should be started prior to the
Ants)	1,000 sq. ft.	establishment of high insect pest populations and
Armyworms		significant turf damage. Make reapplications as
Centipedes	or	necessary to keep pest populations under control,
Crickets		using higher rates as pest pressure increases.
Cutworms	5 -10 fl. oz. per	
Earwigs	acre	Apply at 7-day intervals if retreatment is necessary.
Fleas (adult)		More frequent treatments should be limited to
Grasshoppers		spot treatments.
Japanese Beetles (adult)		
Millipedes		For <b>spot treatments</b> , use 0.50 fl. oz. of this
Mites		product per 1 - 2.5 gallons of water.
Mosquitoes (adult)		
Pillbugs		Surface Insect Control (Armyworm, Cutworms,
Sod Webworms		Fleas, etc.): Apply this product at specified rates
Sowbugs		in 2 - 5 gallons of water per 1,000 sq. ft. The use of
Ticks (including species which		a spreader-sticker may be useful if high rainfall
transmit Lyme disease)		amounts are forecast, otherwise the addition of

<sup>&</sup>lt;sup>3</sup> Equivalent to 9.5 mL per 1,000 sq. ft. (14 oz. per acre) when applied at 8 gallons per 1,000 sq. ft

Pest	Amount Of Equil	Application Instructions
	Lambda 9.7 CS Insecticide*	
Bluegrass Billbugs (adult) Black Turfgrass Ataenius (adult) Chiggers Fleas (adult)	7 mL per 1,000 sq. ft or	adjuvants is not necessary under normal conditions for surface insect control in turf. Delay watering or mowing for 12 - 24 hours to control surface-feeding insect pests.
Grubs (suppression) Hyperodes Weevils (adult) Mole Crickets (nymphs and young adults)	10 fl. oz. per acre	Fire Ant Control: Treat individual mounds with a drench application using a watering can. Use 0.50 fl. oz. of this product per 2.5 gallons of water. Thoroughly soak each mound and a 3 ft. diameter circle around each mound. Gently apply the mixture to avoid disturbing the mound. Disturbing the mound may cause the ants to migrate and reduce the effectiveness of the treatment. Apply in early morning or late evening hours. You may make applications on a monthly basis to maintain protection of treated areas.
		<b>Mosquito Control:</b> Apply as a general spray around landscape plantings, turf, and building foundations to control mosquitoes at specified rates in 2 - 5 gallons of water per 1,000 sq. ft.
		Thatch Inhabiting Insect Control (Chinch Bugs, Billbugs, etc.): Apply this product at specified rates in 2 - 10 gallons of water per 1,000 sq. ft. The use of a nonionic wetting agent, penetrant or similar adjuvant is recommended at label rates. Lightly irrigate after application with up to ½ inch of water to move the product into the thatch layer. If irrigation is not available, then use high water application rates.
		Subsurface Insect Control (Mole Crickets, Grubs, etc.): Apply this product at specified rates in 4 - 10 gallons of water per 1,000 sq. ft. The use of a nonionic wetting agent, penetrant or similar adjuvant is strongly recommended following label rates. Use the highest water application rates possible with your sprayer. Apply this product to turf wet with dew, rain or irrigation. Water-in immediately after application with ½ - ½ inch of
* Example: To treat the listed tur	f nests at the 7 ml in	immediately after application with ¼ - ½ inch of water. er 1,000 sq. ft. rate, determine the gallons of dilution

<sup>\*</sup> Example: To treat the listed turf pests at the 7 mL per 1,000 sq. ft. rate, determine the gallons of dilution per 1,000 sq. ft. needed to adequately cover the turf. At a 5 gallon per 1,000 sq. ft. dilution, take the 7 mL and divide it by the 5 (gallon) to get 1.4 mL to be added per gallon. For a 50 gallon tank, therefore, this would be 1.4 mL X 50 = 70 mL (or 2.5 oz.) in 50 gallons of water.

# Equil Lambda 9.7 CS Insecticide Mixing Chart for Turf Insect Pest Control

(Equil Lambda 9.7 CS Insecticide to add per 100 gal. spray tank)

Rate of		Application R	Rate Per 1,000 So	quare Feet of Turi	f
Equil Lambda 9.7 CS Insecticide	2 gallons	4 gallons	6 gallons	8 gallons	10 gallons
5 fl. oz. per acre	5.7 fl.oz.	2.9 fl. oz.	1.9 fl. oz.	1.4 fl. oz.	1.2 fl. oz.
10 fl. oz. per acre	11.5 fl. oz.	5.7 fl. oz.	3.8 fl. oz.	2.9 fl. oz.	2.3 fl. oz.
20 fl. oz. per acre	23.0 fl. oz.	11.5 fl. oz.	7.7 fl. oz.	5.7 fl. oz.	4.6 fl. oz

# STORAGE AND DISPOSAL

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

**STORAGE AND SPILL PROCEDURES:** Store upright at room temperature. Keep container closed when not in use. Do not store near food or feed. Avoid exposure to extreme temperatures. In case of spillage or leakages, soak up with an absorbent material such as sand, sawdust, earth, Fuller's earth, etc. Dispose of with chemical waste.

**PESTICIDE DISPOSAL:** Pesticide, spray mixture or rinse water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

(Nonrefillable  $\leq$  5 gallons): 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  $\frac{1}{4}$  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.

(Nonrefillable > 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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. 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.

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**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

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