

**QUALI-PRO**

**RESTRICTED USE PESTICIDE**  
**Due to Toxicity to Fish and Aquatic Organisms**  
FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED  
APPLICATORS OR PERSONS UNDER THEIR DIRECT  
SUPERVISION, AND ONLY FOR THOSE USES COVERED  
BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

# Lambda GC-O

## *Insecticide*

Distributor  
**CENTAUR**  
ASIA PACIFIC

[www.centaur-asiapacific.com](http://www.centaur-asiapacific.com)  
[info@centaur-asiapacific.com](mailto:info@centaur-asiapacific.com)

For Use to Control Insect Pests On:

- Golf Course and Athletic Field Turf
- Sod Farms
- Ornamentals Grown in Commercial Greenhouses, Shadehouses and Nurseries
- Ornamentals and Lawns in Landscaped Areas Around Residential, Institutional, Public, Commercial and Industrial Buildings, Parks, Recreational Areas, Golf Courses and Athletic Fields

ACTIVE INGREDIENT:	% BY WEIGHT
Lambda-cyhalothrin*: [1 $\alpha$ (S*), 3 $\alpha$ (Z)]-( $\pm$ )-cyano(3-phenoxyphenyl)methyl-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-d imethylcyclopropanecarboxylate: . . .	9.7%
<b>OTHER INGREDIENTS:</b> . . . . .	<u>90.3%</u>
<b>TOTAL:</b> . . . . .	100.0%

\* synthetic pyrethroid

Contains 0.88 lbs. active ingredient per gallon or 0.22 lbs. a.i. per quart

EPA Reg. No. 53883-244-66222

EPA Est. No. 53883-TX-002

## **KEEP OUT OF REACH OF CHILDREN**

# **WARNING**

For additional precautionary, handling, and use statements, see inside of this booklet.

**Manufactured for: Makhteshim Agan of North America, Inc.**  
4515 Falls of Neuse Road, Suite 300 • Raleigh, NC 27609

**Net Contents: 1 Quart**

12957  
EPA 052908/Rev A

<b>FIRST AID</b>	
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <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>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <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>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <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 the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor or going for treatment.</p>	
<b>HOT LINE NUMBER</b>	
<p>You may also contact Prosar at 1-877-250-9291 for emergency medical treatment information.</p>	

## **PRECAUTIONARY STATEMENTS**

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

**WARNING:** Harmful if absorbed through skin. Harmful if inhaled. Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist or vapors. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

Skin exposure may also result in a sensation described as a tingling, itching, burning, or prickly feeling. Onset may occur immediately to 4 hours after exposure and may

last 2 to 30 hours without damage. Wash exposed areas once with soap and water. Relief from the skin sensation may be obtained by applying an oil-based cream.

### **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 F on an EPA chemical resistance category selection chart.

#### **Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, or viton
- Shoes plus socks

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.

### **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.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### **Environmental Hazards**

This product is extremely toxic to fish. Do not contaminate water when disposing of equipment washwater. Do not apply directly to water, 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. Care should be used when making applications 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.

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. In the state of New York, do not apply within 100 ft. of coastal marshes or streams that drain into marshes. When treating tall trees (>15 ft. from the ground) with high pressure sprays or during any application with air-assisted equipment (mist blowers), do not apply within 150 ft. of aquatic areas.

Notify State and/or Federal authorities immediately if you observe any adverse environmental effects due to the use of this product.

### **Physical or Chemical 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.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours. Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

### **AGRICULTURAL USE REQUIREMENTS (cont.)**

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated such as plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, or viton
- Shoes plus socks

### **NON-AGRICULTURAL USE REQUIREMENTS**

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

**Keep adults, children, and pets off treated areas until spray has dried following the application.**

Quali-Pro Lambda GC-O Insecticide is for use on turf and ornamentals in indoor and outdoor areas such as residential landscapes and nonresidential landscapes around institutional, public, commercial, and industrial buildings, parks, recreational areas, golf courses, and athletic fields.

Quali-Pro Lambda GC-O Insecticide may be applied to ornamentals grown in commercial greenhouses, shadehouses, and nurseries, and turf grown on sod farms or for commercial seed production.

Quali-Pro Lambda GC-O Insecticide may also be used for applications to golf course fairways, greens, greens aprons, and tee areas.

### **USE RESTRICTIONS:**

- Do not apply to flowering plants when pollinating insects are present. Make applications during the early morning or late evening hours.
- Do not apply this product through any type of irrigation system.
- Do not apply this product to edible crops or crops grown for food/feed.
- Do not apply this product by aerial application.

### **Spray Drift Precautions**

Do not make applications when wind speed is 15 miles per hour or greater. Low humidity and high temperatures increase the likelihood of spray drift to sensitive areas.

Avoid spraying during conditions of low humidity and/or high temperature. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when the wind direction is toward the aquatic area. Do not make outdoor applications during temperature inversions. Inversions are characterized by stable air and increasing temperature with height above ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

### **Application**

Quali-Pro Lambda GC-O Insecticide may be mixed with water and applied in all types of application equipment. Mix product with the required amount of water and apply as a dilute application to the point of runoff. Apply as a coarse spray using appropriate equipment. To avoid small droplets, do not use excessive spray pressure, and use the correct nozzle. For hard-to-wet foliage such as holly, pine, or ivy, use a spreader-sticker to increase knockdown and residual activity. If concentrate or mist-type application equipment is used, use the equivalent amount of product for concentrate or mist-type application equipment as would be used in a dilute application.

**Note:** 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 still be sensitive to the final spray solution. Before treating large areas, prespray a selection of ornamental plants and observe them for 7-10 days if local use data is not available.

### **MIXING**

1. Fill application tank with 1/2 – 3/4 volume of water. The recommended pH of the water should be 5-7 pH. Use a buffering agent to adjust the pH level if necessary.
2. Slowly add Quali-Pro Lambda GC-O Insecticide to tank water with maximum agitation. If other chemicals are added to the applicator tank, Quali-Pro Lambda GC-O Insecticide should be added last. If mixed with EC formulations or oils, use within 24 hours.
3. Fill tank to desired volume and continue to agitate while making applications. Shake or reagituate application equipment before use if application is interrupted.
4. Make up only amount of application volume required.

### Mixing Chart for Use on Ornamentals

Quali-Pro Lambda GC-O Insecticide to add per spray tank.

Rate of Quali-Pro Lambda GC-O Insecticide	25 gals.	50 gals.	100 gals.	200 gals.	300 gals.
1.5 oz.	0.4 oz.	0.8 oz.	1.5 oz.	3.0 oz.	4.5 oz.
3.0 oz.	0.8 oz.	1.5 oz.	3.0 oz.	6.0 oz.	9.0 oz.
5.0 oz.	1.3 oz.	2.5 oz.	5.0 oz.	10.0 oz.	15.0 oz.

### Mixing Chart for Use on Turf

Quali-Pro Lambda GC-O Insecticide to add per 100-gallon spray tank.

Rate of Quali-Pro Lambda GC-O Insecticide	2 gals.	4 gals.	6 gals.	8 gals.	10 gals.
5 oz./A	5.7 oz.	2.9 oz.	1.9 oz.	1.4 oz.	1.2 oz.
10 oz./A	11.5 oz.	5.7 oz.	3.8 oz.	2.9 oz.	2.3 oz.
20 oz./A	23.0 oz.	11.5 oz.	7.7 oz.	5.7 oz.	4.6 oz.

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

### Compatibility

Quali-Pro Lambda GC-O Insecticide has been found to be compatible with all commonly used fungicides, miticides, liquid fertilizers, and other insecticides. Check compatibility using the correct proportion of products in a small jar if local experience is not available.

### ORNAMENTALS

#### Agricultural Uses:

Ornamentals in Greenhouses, Shadehouses, and Nurseries

#### Non-Agricultural Uses:

**Ornamentals** (including Trees, Shrubs, Flowers, Evergreens, Foliage Plants, and Ground Covers) in Residential Landscaped Areas and Landscaped Areas around Institutional, Public, Commercial, and Industrial Buildings, Parks, Recreational Areas, Golf Courses, and Athletic Fields

**NOTE:** Do not apply more than 0.36 lb. of the active ingredient (52.4 fl. oz. of concentrate) per acre per year.

Pest Controlled		Amount of Quali-Pro Lambda GC-O Insecticide
Ants (including imported fire ants), Armyworms, Azalea caterpillars, Aphids, Bagworms, Black vine weevils (adult), Boxelder bugs, Budworms, California oakworms, Cankerworms, Cockroaches, Crickets, Cutworms, Eastern tent caterpillars, Elm leaf beetles, European sawflies, Fall webworms, Flea beetles, Forest tent caterpillars, Gypsy moth larvae, Japanese beetles (adult)	June beetles (adult), Lace bugs, Leaf-feeding caterpillars, Leafhoppers, Leafminers (adult), Leaf rollers, 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	1.5 – 5 fl. oz./100 gals. or 44 – 148 mL/100 gals.
Broadmites, Brown softscales, California redscales (crawler), Clover mites	Mealybugs, Pine needlescales (crawler), Spider mites, Whiteflies	3 – 5 fl. oz./100 gals. or 88 – 148 mL/100 gals.

**Application Instructions:**

Apply to ornamentals before the onset of high pest populations. Reapply at 7-day intervals if necessary to maintain control. Use higher rates when pest pressure increases.

For best results, ensure thorough spray coverage. For ornamentals with waxy or hard-to-wet foliage, the use of a spreader-sticker at recommended rates may help with the control of insects.

Quali-Pro Lambda GC-O Insecticide may also be applied as a spot treatment at the



rate of 0.5 fl. oz. per 1-2.5 gallons of water.

Consult your state university or local Cooperative Extension Service office for specific pest control application timing in your area.

**Note:** 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 still be sensitive to the final spray solution. Before treating large areas, prespray a selection of ornamental plants and observe them for 7-10 days if local use data is not available.

**Scale:** Thoroughly cover the plant with Quali-Pro Lambda GC-O Insecticide spray including trunks, stems, twigs, and foliage for control of scale insects.

**Bagworm:** Apply Quali-Pro Lambda GC-O Insecticide when bagworm larvae begin to hatch. Spray directly on the larvae. Application is the most effective when the larvae are young.

## **TURFGRASS**

### **Agricultural:**

Sod Farms and Grass Seed Farms

### **Non-Agricultural:**

Lawns around Residential, Institutional, Public, Commercial, and Industrial Buildings, Parks, Recreational Areas, Golf Courses, and Athletic Fields

Golf Course and Athletic Field Turf

### **NOTE:**

- Do not apply more than 0.36 lb. of active ingredient (52.4 fl. oz. of concentrate) per acre per year.
- Do not apply when turfgrass is waterlogged or when soils are saturated with water (i.e., will not accept irrigation).
- Keep children and pets off treated areas until spray has dried following the application.

Pest	Amount of Quali-Pro Lambda GC-O Insecticide
Ants (including imported fire ants), Armyworms, Centipedes, Crickets, Cutworms, Earwigs, Fleas (adult), Grasshoppers, Japanese beetles (adult), Millipedes, Mites, Pillbugs, Sod webworms, Sow bugs, Ticks (including species which may transmit Lyme disease)	3.4-7 mL/1,000 sq. ft. or 5-10 fl. oz./A
Bluegrass billbugs (adult), Black turfgrass ataeenius (adult), Chiggers, Fleas (adult), Grub (suppression), Hyperodes weevils (adult), Mole crickets (nymphs and young adults)	7 mL/1,000 sq. ft. or 10 fl. oz./A
Chinch bugs, Mole crickets (mature adults) (Not for use on mature adult mole crickets and chinch bugs in New York State.)	14 mL/1,000 sq. ft. or 20 fl. oz./A

### Application Instructions

Make application to turf before high insect populations and turf damage is evident. Reapply at 7-day intervals if necessary to maintain control. Use higher rates when pest pressure increases.

Quali-Pro Lambda GC-O Insecticide may also be applied as a spot treatment at the rate of 0.5 fl. oz. per 1-2.5 gallons of water.

**Surface Insect Control (armyworm, cutworms, fleas, etc.):** For best results, apply Quali-Pro Lambda GC-O Insecticide at recommended rates in 2-5 gals. of water per 1,000 sq. ft. If high rainfall amounts are forecast, the addition of a spreader-sticker may be helpful. For normal conditions for surface insect control on turf, the addition of adjuvants is not necessary. For best control of target pests, do not water or mow for 12-24 hours.

**Thatch Inhabiting Insect Control (chinch bugs, billbugs, etc.):** For best results, apply Quali-Pro Lambda GC-O Insecticide at recommended rates in 2-10 gals. of water per 1,000 sq. ft. The use of a nonionic wetting agent, penetrant, or similar adjuvant is recommended at label rates. To help move the Quali-Pro Lambda GC-O Insecticide into the thatch layer after application, lightly irrigate with up to 1/2 inch of water. If irrigation is not available, then use high water application rates for optimum results.

**Subsurface Insect Control (mole crickets, grubs, etc.):** For best results, apply Quali-Pro Lambda GC-O Insecticide at recommended rates in 4-10 gals. 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 Quali-Pro Lambda GC-O Insecticide to turf wet with dew, rain, or irrigation. Water-in immediately after application with 1/4-1/2 inch of water for optimum results.

**Fire Ant Control:** Use 0.5 fl. oz. of Quali-Pro Lambda GC-O Insecticide per 2.5 gals. of water. Use a watering can to treat individual mounds as a drench application. Thoroughly soak each mound and a 3 ft. diameter circle around each mound. In order to avoid disturbing the mound, gently apply the mixture. Disturbing the mound may cause the ants to migrate and reduce the effectiveness of the treatment. For best results, apply in early morning or late evening hours. Make additional treatments as needed, but not more than every 7 days.

**Mosquito Control:** To control mosquitoes, apply as a general spray around landscape plantings, turf, and building foundations. For best results, apply Quali-Pro Lambda GC-O Insecticide at recommended rates in 2-5 gals. of water per 1,000 sq. ft.

#### **STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

**Pesticide Storage:** Keep container closed when not in use. Do not store near food or feed. Shake well before use. Protect from freezing. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste storage area until proper disposal can be made.

**Pesticide Disposal:** Pesticide wastes are toxic. 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 to label instructions, contact your State Pesticide or Environmental Control Agency or the hazardous waste representative of the nearest EPA Regional Office for guidance.

#### **Container Handling:**

*For Containers equal to or 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. Offer for recycling if available. Completely empty container into application equipment, then offer for recycling or reconditioning, or puncture and

### **STORAGE AND DISPOSAL (cont.)**

dispose of empty container in a sanitary landfill, by incineration, or by other procedures approved by state and local authorities.

*For Containers greater 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. Fill the container 1/4 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. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling if available. Completely empty container into application equipment, then offer for recycling or reconditioning, or puncture and dispose of empty container in a sanitary landfill, by incineration, or by other procedures approved by state and local authorities.

### **LIMITATION OF WARRANTY AND LIABILITY**

Read the entire directions for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following **CONDITIONS, DISCLAIMER OF WARRANTIES** and **LIMITATIONS OF LIABILITY**.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Makhteshim Agan of North America, Inc. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Makhteshim Agan of North America, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

**LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Makhteshim Agan of North America, Inc.'s election, the replacement of product.