

MATERIAL SAFETY DATA SHEET

Quali-Pro® Lambda GC-O

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1. IDENTIFICATION

Product name: **Quali-Pro® Lambda GC-O**
 Chemical name of active ingredient(s): Lambda-cyhalothrin: [1 α (S*),3 α (Z)]-(\pm)-cyano-(3-phenoxyphenyl)methyl-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate
 Manufacturer: Makhteshim Agan of North America, Inc.
 4515 Falls of Neuse Road, Suite 300
 Raleigh, NC 27609
 Phone: 919-256-9300
 For fire, spill, and/or leak emergencies, contact Infotrac: Phone: 1-800-535-5053
 For medical emergencies and health and safety inquiries, contact Prosar: Phone: 1-877-250-9291

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME	CAS NO.	%	OSHA PEL	ACGIH TLV	OTHER	NTP/IARC/OSHA (Carcinogen)
Lambda-cyhalothrin	91465-08-6	9.7	NE	NE	NA	NA

NE=None established

NA=Not applicable

3. HAZARDS IDENTIFICATIONS

PHYSICAL PROPERTIES

Appearance: White viscous liquid

Odor: Mild odor

EMERGENCY OVERVIEW: 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.

PHYSICAL OR CHEMICAL HAZARDS: Do not use this product in or on electrical equipment due to the possibility of shock hazard.

SYMPTOMS OF ACUTE EXPOSURE: 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.

4.FIRST AID MEASURES

FIRST AID	
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> Take off contaminated 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:	<ul style="list-style-type: none"> 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 continue rinsing eye. Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none"> 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 a poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED:	<ul style="list-style-type: none"> 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.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For Medical emergencies call Prostar at 1-800-308-5391.

5. FIRE FIGHTING MEASURES

FLASH POINT: Not applicable

FLAMMABLE LIMITS: Not applicable

EXTINGUISHING MEDIA: Water fog, dry chemical, foam, CO₂ or halogenated agents.

UNUSUAL FIRE, EXPLOSION, AND REACTIVITY HAZARDS: Possible toxic smoke, vapors, fallout and runoff water can result from fires depending on extent of combustion and presence of other combustible materials. Contaminated buildings, areas, and equipment must be properly decontaminated before reuse.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide, carbon monoxide. Nitrogen oxides, ammonia, cyanuric acid, biuret. Halogen, halogen acids, possible trace amounts of carbonyl halide.

FIRE-FIGHTING PROCEDURES: Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area and equipment until decontaminated. Water runoff can cause environmental damage.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS/LEAKS: Small spill can be handled routinely. Use adequate ventilation to prevent inhalation. Wear suitable protective clothing and eye protection to prevent skin and eye contact. Do not allow material to enter streams, sewers or other waterways. Spread absorbent on the liquid such as clay, sand, sawdust, or dirt. Sweep up and place in a suitable container for disposal and label the contents. Rinse with a small amount of water and use absorbent to collect the wash solution. Absorb any excess liquid as indicated above, and add to the disposal container. Seal drum and dispose of contaminated material in a facility permitted for hazardous waste. Large spills should be handled according to a spill plan.

7. HANDLING AND STORAGE

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

PRECAUTIONS TO BE TAKEN IN HANDLING: Wash thoroughly after handling. Do not get in eyes, on skin or on clothing. Keep container closed. Use only with adequate ventilation.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store upright at room temperature. Avoid exposure to extreme temperatures.

STORAGE TEMPERATURE (MIN/MAX): Normal ambient temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURER, FORMULATION, PACKAGING AND USE OF THIS PRODUCT:

EYE PROTECTION: Chemical safety glasses, goggles or a faceshield, depending on exposure potential.

SKIN PROTECTION: Long-sleeved shirt and long pants. Shoes plus socks.

HAND PROTECTION: Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or viton.

RESPIRATOR REQUIREMENTS: Not normally needed for this product when diluted in water for end-use application. When needed, use MSHA/NIOSH approved respirator for pesticides.

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 and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

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User 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.

EXPOSURE GUIDELINES: Refer to Section 2.

ENGINEERING CONTROLS: Use adequate ventilation to minimize airborne concentrations of this material.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White viscous liquid

ODOR: Mild odor

FLASH POINT: Not applicable

pH: 5.31

SPECIFIC GRAVITY: 1.048 g/ml

VISCOSITY: 162.702 (20°C) and 78.676 (40°C) centistokes

10. STABILITY AND REACTIVITY

STABILITY: This product is stable under normal use and storage.

CONDITIONS TO AVOID: Do not use or store near heat or open flame.

MATERIALS TO AVOID: Oxidizing agents, alkalies, calcium hypochlorite.

HAZARDOUS POLYMERIZATION: Not known to occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Can decompose at high temperatures forming toxic gases.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES

Acute Oral LD ₅₀ (Rat):	> 300 mg/kg
Acute Dermal LD ₅₀ (Rat):	> 5,000 mg/kg
Acute Inhalation LC ₅₀ (Rat):	> 2.02 mg/L (4-hrs.)
Eye Irritation (Rabbit):	Mildly irritating
Dermal Irritation (Rabbit):	Moderately irritating
Dermal Sensitization:	Not a skin sensitizer

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: This product is extremely toxic to fish. Do not contaminate water when disposing of equipment wash water. 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. 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.

ECO-ACUTE TOXICITY: (Lambda-cyhalothrin technical)

Bees LC50/EC50:	0.038 ug/bee
Invertebrates (water flea) LC50/EC50:	0.00036 ppm
Fish (trout) LC50/EC50:	0.00024 ppm
Fish (bluegill) LC50/EC50:	0.00021 ppm
Bird (Bobwhite quail) 8-day dietary LC50/EC50:	>5300 ppm
Bird (Mallard duck) 8-day dietary LC50/EC50:	>3948 ppm

ENVIRONMENTAL FATE:

Lambda-cyhalothrin technical: Not persistent in soil or water, Immobile in soil. Sinks in water after 24 hours.

