

**Syngenta Crop Protection, Inc.**  
**Post Office Box 18300**  
**Greensboro, NC 27419**

**In Case of Emergency, Call**  
**1-800-888-8372**

**1. PRODUCT IDENTIFICATION**

Product Name: **DEMAND G INSECTICIDE** Product No.: A14556B  
 EPA Signal Word: Caution  
 Active Ingredient(%): Lambda-Cyhalothrin Technical (0.045%) CAS No.: 91465-08-6  
 Chemical Name: [1a(S\*),3a(Z)]-cyano(3-phenoxyphenyl)methyl-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate  
 Chemical Class: A pyrethroid insecticide  
 EPA Registration Number(s): 100-1240 **Section(s) Revised: 16**

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Nuisance Dusts (Particulates N.O.C.)	15 mg/m <sup>3</sup> (total); 5 mg/m <sup>3</sup> (respirable)	10 mg/m <sup>3</sup> (inhalable); 3 mg/m <sup>3</sup> (respirable)	Not Established	No
Tetrahydrofurfuryl Alcohol (THFA)	Not Established	Not Established	2 ppm (TWA) ****	No
Lambda-Cyhalothrin Technical (0.045%)	Not Established	Not Established	0.04 mg/m <sup>3</sup> TWA (skin) ***	No

\*\*\* Syngenta Occupational Exposure Limit (OEL)

\*\*\*\* Recommended by AIHA (American Industrial Hygiene Association)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.  
 Syngenta Hazard Category: B

**3. HAZARDS IDENTIFICATION**
Symptoms of Acute Exposure

Irritating to eyes.

May cause temporary itching, tingling, burning or numbness of exposed skin, called paresthesia.

Hazardous Decomposition Products

Can decompose at high temperatures forming toxic gases.

Physical Properties

Appearance: Brown solid

Odor: Paint

Unusual Fire, Explosion and Reactivity Hazards

This product is a combustible powder and like all combustible powders can ignite, burn and form explosive mixtures with air if not handled correctly. Mixtures of powder in air with flammable solvent vapors should be avoided.

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

**4. FIRST AID MEASURES**

Have the product container, label or Material Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

- Ingestion: If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
- Skin Contact: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
- Inhalation: 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 Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

#### Notes to Physician

There is no specific antidote if this product is ingested.

Treat symptomatically.

Skin contact paresthesia effects (itching, tingling, burning or numbness) are transient, lasting up to 24 hours. Treat symptomatically.

#### Medical Condition Likely to be Aggravated by Exposure

None known.

## **5. FIRE FIGHTING MEASURES**

### Fire and Explosion

Flash Point (Test Method):	Not Applicable	
Flammable Limits (% in Air):	Lower: % Not Applicable	Upper: % Not Applicable
Autoignition Temperature:	Not Available	
Flammability:	Not Applicable	

### Unusual Fire, Explosion and Reactivity Hazards

This product is a combustible powder and like all combustible powders can ignite, burn and form explosive mixtures with air if not handled correctly. Mixtures of powder in air with flammable solvent vapors should be avoided.

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

### In Case of Fire

Use dry chemical, foam or CO<sub>2</sub> extinguishing media. 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. If water is used to fight fire, dike and collect runoff.

## **6. ACCIDENTAL RELEASE MEASURES**

### In Case of Spill or Leak

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Sweep up material and place in a compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

## **7. HANDLING AND STORAGE**

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

- Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.
- Eye Contact: Where eye contact is likely, use chemical splash goggles.
- Skin Contact: Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear. Stringent housekeeping measures are necessary to prevent translocation of the material from contaminated work surfaces to uncontaminated surfaces (railings, doors, etc.). Unprotected contact with such translocated material can result in paresthesia effects (see Section 11 of MSDS).
- Inhalation: A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH approved respirator with any N, R, or P or HE filter.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Brown solid
- Odor: Paint
- Melting Point: Not Available
- Boiling Point: Not Applicable
- Specific Gravity/Density: 47.40 lbs/ft<sup>3</sup> typical @ 68°F (20°C)
- pH: 7.3 (1% in deionized H<sub>2</sub>O @ 77°F (25°C))

### Solubility in H<sub>2</sub>O

Lambda-Cyhalothrin Technical: 0.004 mg/l

### Vapor Pressure

Lambda-Cyhalothrin Technical: 1.5 x 10<sup>(-9)</sup> mmHg @ 68°F

## 10. STABILITY AND REACTIVITY

- Stability: Stable under normal use and storage conditions.
- Hazardous Polymerization: Will not occur.
- Conditions to Avoid: None known.
- Materials to Avoid: None known.
- Hazardous Decomposition Products: Can decompose at high temperatures forming toxic gases.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity/Irritation Studies (Finished Product)

- Ingestion: Practically Non-Toxic  
Oral (LD50 Female Rat) : >5,000 mg/kg body weight
- Dermal: Practically Non-Toxic  
Dermal (LD50 Rat) : >5,050 mg/kg body weight
- Inhalation: Not Available  
Inhalation (LC50 Rat) : Not Available
- Eye Contact: Minimally Irritating (Rabbit)
- Skin Contact: Non-Irritating (Rabbit)
- Skin Sensitization: Not a Sensitizer (Guinea Pig)

### Reproductive/Developmental Effects

Lambda-Cyhalothrin Technical: Not a developmental or reproductive toxicant.

#### Chronic/Subchronic Toxicity Studies

Lambda-Cyhalothrin Technical: Reversible paresthesia (abnormal skin sensation).  
Reversible clinical signs of neurotoxicity in mammals.

#### Carcinogenicity

Lambda-Cyhalothrin Technical: No treatment-related tumors in rats or mice.

#### Other Toxicity Information

In humans, contact with exposed skin may result in temporary itching, tingling, burning or numbness, called paresthesia. The effect may result from splash, aerosol, or hot vapor contact, or transfer to the face from contaminated gloves and hands. The symptoms normally disappear within 24 hours. Face and genital areas are especially susceptible to this effect. Paresthesia involving the face is also known as "subjective facial sensation" or SFS.

#### Toxicity of Other Components

##### Nuisance Dusts (Particulates N.O.C.)

The carrier and one or more components are reported by the manufacturers to be nuisance dusts. Prolonged breathing of excessive dust may affect lung function.

##### Tetrahydrofurfuryl Alcohol (THFA)

Inhalation of vapors at high concentrations can cause central nervous system effects (dizziness, headache), irritation to eyes or respiratory tract. Chronic overexposure may affect the kidney.

#### Target Organs

##### Active Ingredients

Lambda-Cyhalothrin Technical: Liver, nervous system

##### Inert Ingredients

Nuisance Dusts (Particulates N.O.C.): Lung

Tetrahydrofurfuryl Alcohol (THFA): CNS, Kidney

## 12. ECOLOGICAL INFORMATION

#### Summary of Effects

##### Lambda-Cyhalothrin Technical

Slightly toxic to birds. Highly toxic to fish, invertebrates and bees.

#### 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  
Birds (8-day dietary - Bobwhite Quail) LC50/EC50 > 5,300 ppm  
Birds (8-day dietary - Mallard Duck) LC50/EC50 > 3,948 ppm

#### Eco-Chronic Toxicity

Lambda-Cyhalothrin Technical: Not available at this time.

#### Environmental Fate

##### Lambda-Cyhalothrin Technical:

The information presented here is for the active ingredient, lambda-cyhalothrin.  
Not persistent in soil or water. Immobile in soil. Sinks in water (after 24 h).

## 13. DISPOSAL CONSIDERATIONS

Disposal

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

**14. TRANSPORT INFORMATION**

DOT Classification

Ground Transport - NAFTA  
Not regulated.

Air Transport - NAFTA  
Not regulated.

B/L Freight Classification

Insecticides, NOI, O/T Poison

Comments

Water Transport - International  
Proper Shipping Name: Environmentally Hazardous Substance Solid, N.O.S. (Lambda-Cyhalothrin), Marine Pollutant  
Hazard Class or Division: Class 9  
Identification Number: UN 3077  
Packing Group: PG III  
IMDG EMS #: F-A, S-F

Air Transport - International  
Proper Shipping Name: Environmentally Hazardous Substance Solid, N.O.S. (Lambda-Cyhalothrin)  
Hazard Class or Division: Class 9  
Identification Number: UN 3077  
Packing Group: PG III  
Note: Max. inner packages 5 kg  
Max. single packages 400 kg

**15. REGULATORY INFORMATION**

EPCRA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard  
Chronic Health Hazard

Section 313 Toxic Chemicals: Not Applicable

California Proposition 65

Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ)

None

RCRA Hazardous Waste Classification (40 CFR 261)

Not Available

TSCA Status

Exempt from TSCA, subject to FIFRA

**16. OTHER INFORMATION**

NFPA Hazard Ratings

Health: 2  
Flammability: 2  
Instability: 0

HMIS Hazard Ratings

Health: 2  
Flammability: 2  
Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 9/15/2005

Revision Date: 7/31/2006

Replaces: 4/19/2006

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

RSVP# : Not Applicable

End of MSDS