1. PRODUCT IDENTIFICATION

Product Name: DEMAND G INSECTICIDE
EPA Signal Word: Caution
Product No.: A14556B

Active Ingredient(%): Lambda-Cyhalothrin (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: 3

2. HAZARDS IDENTIFICATION

Health and Environmental
Causes mild eye irritation.
May cause temporary itching, tingling, burning or numbness of exposed skin, called paresthesia. Vapors may cause drowsiness or dizziness. May be harmful if swallowed and enters airway.

Combustible powder.

Hazardous Decomposition Products
None known.

Physical Properties
Appearance: Brown solid
Odor: Paint

Unusual Fire, Explosion and Reactivity Hazards
During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

See also Sec. 7.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Material</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other</th>
<th>NTP/IARC/OSHA Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystalline Silica, Quartz and Cristobalite</td>
<td>10 mg/m³ (%SiO₂+2)</td>
<td>0.025 mg/m³ (respirable</td>
<td>0.05 mg/m³ (respirable</td>
<td>IARC 1; ACGIH 1</td>
</tr>
<tr>
<td></td>
<td>(respirable dust)</td>
<td>silica)</td>
<td>dust) **</td>
<td></td>
</tr>
<tr>
<td>Particles, Not Otherwise Specified (PNOS)</td>
<td>15 mg/m³ (total); 5 mg/m³</td>
<td>Not Established</td>
<td>Not Established</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>(respirable)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrahydrofurfuryl Alcohol (THFA)</td>
<td>Not Established</td>
<td>Not Established</td>
<td>0.5 ppm TWA ****</td>
<td>No</td>
</tr>
<tr>
<td>Lambda-Cyhalothrin (0.045%)</td>
<td>Not Established</td>
<td>Not Established</td>
<td>0.04 mg/m³ TWA (skin) ***</td>
<td>No</td>
</tr>
</tbody>
</table>

** recommended by NIOSH

*** Syngenta Occupational Exposure Limit (OEL)
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. Do not give any liquid to the person. 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.

Contains petroleum distillate - vomiting may cause aspiration pneumonia.

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: Combustible powder

Unusual Fire, Explosion and Reactivity Hazards

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

See also Sec. 7.

In Case of Fire

Use appropriate extinguishing media for combustibles in the area. 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
7. HANDLING AND STORAGE

This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents.

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 AND PACKAGING 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 dust-proof chemical goggles.

Skin Contact: Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.

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 combination particulate/organic vapor respirator should be used until effective engineering controls are installed to comply with occupational exposure limits, or until exposure limits are established. Use a NIOSH certified respirator with an organic vapor (OV) cartridge or canister with any R, P or HE filter.

Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Brown solid
Odor: Paint
Melting Point: Not Available
Boiling Point: Not Applicable
Specific Gravity/Density: 47.4 lbs/ft³ typical @ 68°F (20°C)
pH: 7.3 (1% in deionized H2O @ 77°F (25°C))

Solubility in H2O
Lambda-Cyhalothrin : 0.004 mg/l
Vapor Pressure
Lambda-Cyhalothrin : 1.5 x 10(-9) mmHg @ 68°F (20°C)

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.

Product Name: DEMAND G INSECTICIDE
11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

Ingestion:
- Oral (LD50 Female Rat): > 5000 mg/kg body weight

Dermal:
- Dermal (LD50 Rat): > 5050 mg/kg body weight

Inhalation:
- 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: Not a developmental or reproductive toxicant.

Chronic/Subchronic Toxicity Studies
- Lambda-Cyhalothrin: Reversible paresthesia (abnormal skin sensation).
- Reversible clinical signs of neurotoxicity in mammals.

Carcinogenicity
- Lambda-Cyhalothrin: 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
- Crystalline Silica, Quartz and Cristobalite:
  - Chronic inhalation exposure to crystalline silica is known to cause silicosis and pulmonary fibrosis in humans. Experimental animals exposed to crystalline silica developed respiratory tract cancers.
- Particles, Not Otherwise Specified (PNOS):
  - 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: Liver, nervous system
- Inert Ingredients
  - Crystalline Silica, Quartz and Cristobalite: Respiratory tract
  - Particles, Not Otherwise Specified (PNOS): Lung
  - Tetrahydrofurfuryl Alcohol (THFA): CNS, Kidney

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects
- Lambda-Cyhalothrin:
Environmental Fate
Lambda-Cyhalothrin:
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.

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

Air Transport
Proper Shipping Name: Environmentally Hazardous Substance Solid, N.O.S. (Lambda-Cyhalothrin)
Hazard Class: Class 9
Identification Number: UN 3077
Packing Group: PG III

15. REGULATORY INFORMATION

EPCRA SARA Title III Classification
Section 311/312 Hazard Classes: Acute Health Hazard
Chronic Health Hazard
Fire Hazard

Section 313 Toxic Chemicals: Not Applicable

California Proposition 65
Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ)
None

Fish (Rainbow Trout) 96-hour LC50 0.19 ppb
Bird (Mallard Duck) LD50 Oral > 3950 mg/kg
Invertebrate (Water Flea) 48-hour EC50 0.04 ppb
RCRA Hazardous Waste Classification (40 CFR 261)
Not Applicable

TSCA Status
Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA Hazard Ratings</th>
<th>HMIS Hazard Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health:</td>
<td>0  Minimal</td>
</tr>
<tr>
<td>Flammability:</td>
<td>1  Slight</td>
</tr>
<tr>
<td>Instability:</td>
<td>2  Moderate</td>
</tr>
</tbody>
</table>

Replaces:

Original Issued Date: 9/15/2005
Revision Date: 7/21/2011

For non-emergency questions about this product call:
1-800-334-9481

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.

End of MSDS