1. PRODUCT IDENTIFICATION

Product identifier on label: DEMAND® G
Product No.: A14556B
Use: Insecticide
Manufacturer: Syngenta Crop Protection, LLC
Post Office Box 18300
Greensboro NC 27419
Manufacturer Phone: 1-800-334-9481

2. HAZARDS IDENTIFICATION

Classifications:
- Specific Target Organ Toxicity: Respiratory Irritation Category 3
- Carcinogenicity: Category 1A
- Specific Target Organ Toxicity: Repeated Category 1

Signal Word (OSHA): Danger

Hazard Statements:
- May cause respiratory irritation
- May cause cancer
- Causes damage to organs through prolonged or repeated exposure

Precautionary Statements:
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe dust.
- Wash hands and face thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves, protective clothing, eye protection.
- If inhaled: Remove person to fresh air and keep comfortable for breathing.
- If exposed or concerned: Get medical advice/attention.
- Call a poison center, doctor or Syngenta if you feel unwell.
- Store locked up.
- Dispose of contents and container in accordance with local regulations.

Other Hazard Statements:
- May cause temporary itching, tingling, burning or numbness of exposed
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Common Name</th>
<th>CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystalline Silica, Quartz and Cristobalite</td>
<td>Crystalline Silica, Quartz and Cristobalite</td>
<td>14808-60-7</td>
<td>Trade Secret</td>
</tr>
<tr>
<td>Tetrahydrofurfuryl Alcohol</td>
<td>Tetrahydrofurfuryl Alcohol</td>
<td>97-99-4</td>
<td>Trade Secret</td>
</tr>
<tr>
<td>Lambda-Cyhalothrin</td>
<td>Lambda-Cyhalothrin</td>
<td>91465-08-6</td>
<td>0.045%</td>
</tr>
</tbody>
</table>

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Have the product container, label or 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.

Most important symptoms/effects:
- Drowsiness or dizziness
- Respiratory irritation

Indication of immediate medical attention and special treatment needed:
- 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.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:
- Use dry chemical, foam or CO2 extinguishing media. If water is used to fight fire, dike and collect runoff.

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

See also Sec. 7.
6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

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

Precautions for safe handling:

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.

Conditions for safe storage, including any incompatibilities:

Store locked up.

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.

Chemical Exposure Limits:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystalline Silica, Quartz and Cristobalite</td>
<td>10 mg/m³/(%SiO₂+2) (respirable dust)</td>
<td>0.025 mg/m³ (respirable silica)</td>
<td>0.05 mg/m³ (respirable dust)</td>
<td>NIOSH</td>
</tr>
<tr>
<td>Tetrahydrofurfuryl Alcohol</td>
<td>Not Established</td>
<td>Not Established</td>
<td>0.5 ppm TWA</td>
<td>AIHA</td>
</tr>
<tr>
<td>Lambda-Cyhalothrin</td>
<td>Not Established</td>
<td>Not Established</td>
<td>0.04 mg/m³ TWA (skin)</td>
<td>Syngenta</td>
</tr>
</tbody>
</table>

Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

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
Odor Threshold: Not Available
pH: 7.3 (1% in deionized H2O @ 77°F (25°C))
Melting point/freezing point: Not Available
Initial boiling point and boiling range: Not Applicable
Flash Point (Test Method): Not Applicable
Flammable Limits (% in Air): Not Available
Flammability: Combustible powder
Vapor Pressure: Lambda-Cyhalothrin 1.5 x 10(-9) mmHg @ 68°F (20°C)
Vapor Density: Not Available
Relative Density: 47.4 lbs/ft³ typical @ 68°F (20°C)
Solubility (ies): Lambda-Cyhalothrin 0.004 mg/l
Partition coefficient: n-octanol/water: Not Available
Autoignition Temperature: Not Available
 Decomposition Temperature: Not Available
Viscosity: Not Available
Other: None
10. STABILITY AND REACTIVITY

Reactivity: Not reactive.
Chemical stability: Stable under normal use and storage conditions.
Possibility of hazardous reactions: Will not occur.
Conditions to Avoid: None known.
Incompatible materials: None known.
Hazardous Decomposition Products: None known.

11. TOXICOLOGICAL INFORMATION

Health effects information
Likely routes of exposure: Dermal, Inhalation
Symptoms of exposure: Drowsiness or dizziness, Respiratory irritation
Delayed, immediate and chronic effects of exposure: Possible carcinogenicity, Drowsiness or dizziness, Respiratory irritation

Numerical measures of toxicity (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.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NTP/IARC/OSHA Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystalline Silica, Quartz and Cristobalite</td>
<td>IARC 1; ACGIH A2</td>
</tr>
<tr>
<td>Tetrahydrofurfuryl Alcohol</td>
<td>No</td>
</tr>
<tr>
<td>[1a(S'),3a(Z)]-cyano(3-phenoxyphenyl)methyl-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate</td>
<td>No</td>
</tr>
</tbody>
</table>

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.

- **Tetrahydrofurfuryl Alcohol**
  - Acute exposure causes slight irritation of the skin. Prolonged exposure may cause mild nervous system effects, liver and kidney damage.

**Target Organs**

<table>
<thead>
<tr>
<th>Active Ingredients</th>
<th>Inert Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lambda-Cyhalothrin : Liver, nervous system</td>
<td>Crystalline Silica, Quartz and Cristobalite: Respiratory tract</td>
</tr>
<tr>
<td>Inert Ingredients</td>
<td>Tetrahydrofurfuryl Alcohol: Skin, central nervous system, liver, kidney</td>
</tr>
</tbody>
</table>

**12. ECOLOGICAL INFORMATION**

**Eco-Acute Toxicity**

- **Lambda-Cyhalothrin**:
  - 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

**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
DEMAND® G

Date: 5/8/2019
Replaces: 4/4/2018

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

Pesticide Registration:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Caution: Causes moderate eye irritation. Avoid contact with eyes, or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

EPA Registration Number(s):
100-1240

EPCRA SARA Title III Classification:

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

Section 313 Toxic Chemicals: None

CERCLA/SARA 304 Reportable Quantity (RQ):
None

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: 2</td>
<td>Health: 2</td>
</tr>
<tr>
<td>Flammability: 2</td>
<td>Flammability: 2</td>
</tr>
<tr>
<td>Instability: 0</td>
<td>Reactivity: 0</td>
</tr>
</tbody>
</table>

Syngenta Hazard Category: D

For non-emergency questions about this product call:
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.