1. PRODUCT IDENTIFICATION

Product identifier on label: HERITAGE® G

Product No.: A14912A

Use: Fungicide

Manufacturer: Syngenta Crop Protection, LLC
Post Office Box 18300
Greensboro NC 27419

Manufacturer Phone: 1-800-334-9481

Emergency Phone: 1-800-888-8372

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.
- Avoid breathing mist, vapors, spray.
- 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.
- Get medical advice if you feel unwell.
- Store locked up.
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>Limestone (Dolomitic)</td>
<td>Limestone (Dolomitic)</td>
<td>16389-88-1</td>
<td>Trade Secret</td>
</tr>
<tr>
<td>Wood Dust</td>
<td>Wood Dust</td>
<td>Not Applicable</td>
<td>Trade Secret</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>Other ingredients</td>
<td>Trade Secret</td>
<td>99.69%</td>
</tr>
<tr>
<td>Methyl (E)-2-{2-[6-(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate</td>
<td>Azoxyostrob</td>
<td>131860-33-8</td>
<td>0.31%</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:**
Respiratory irritation

**Indication of immediate medical attention and special treatment needed:**
There is no specific antidote if this product is ingested.
Treat symptomatically.

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.

**Special protective equipment and precautions for firefighters:**
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.
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:
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.

Occupational 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)</td>
<td>0.025 mg/m³ (respirable silica)</td>
<td>0.05 mg/m³ (respirable dust)</td>
<td>NIOSH</td>
</tr>
<tr>
<td>Limestone (Dolomitic)</td>
<td>15 mg/m³ TWA</td>
<td>10 mg/m³ TWA</td>
<td>10 mg/m³ TWA</td>
<td>NIOSH</td>
</tr>
<tr>
<td>Wood Dust</td>
<td>15 mg/m³ TWA (total), 5 mg/m³ (resp)</td>
<td>1 mg/m³ TWA (inhalable dust)</td>
<td>1 mg/m³ TWA (REL)</td>
<td>NIOSH</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Azoxytrobin</td>
<td>Not Established</td>
<td>Not Established</td>
<td>4 mg/m³ TWA</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.

Inhalation:
A particulate filter respirator may be necessary until effective engineering controls are installed to comply with occupational exposure limits. Use NIOSH certified respirator with any N, 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: Ester
Odor Threshold: Not Available
pH: 6.3 (1%)
Melting point/freezing point: Not Available
Initial boiling point and boiling range: Not Applicable
Flash Point (Test Method): Not Available
Flammable Limits (% in Air): Not Available
Flammability: Not Available
Vapor Pressure: Azoxystrobin 8.25 x 10(-13) mmHg @ 68°F (20°C)
Vapor Density: Not Available
Relative Density: 0.89 - 0.91 g/ml
Solubility (ies): Azoxystrobin 6 mg/l in water @ 68°F (20°C)
Partition coefficient: n-octanol/water: Not Available
Autoignition Temperature: Not a self-heating substance.
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: Respiratory irritation
Delayed, immediate and chronic effects of exposure: Possible carcinogenicity, Respiratory irritation

Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

<table>
<thead>
<tr>
<th>Route</th>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion</td>
<td>Oral (LD50 Female Rat)</td>
<td>&gt; 5000 mg/kg body weight</td>
</tr>
<tr>
<td>Dermal</td>
<td>Dermal (LD50 Rabbit)</td>
<td>&gt; 5050 mg/kg body weight</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Inhalation (LC50 Rat)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Eye Contact</td>
<td>Minimally Irritating (Rabbit)</td>
<td></td>
</tr>
<tr>
<td>Skin Contact</td>
<td>Non-Irritating (Rabbit)</td>
<td></td>
</tr>
<tr>
<td>Skin Sensitization</td>
<td>Not a Sensitizer (Guinea Pig)</td>
<td></td>
</tr>
</tbody>
</table>

Reproductive/Developmental Effects
Azoxyostrobin: Did not show reproductive toxicity effects in animal experiments.

Chronic/Subchronic Toxicity Studies
Azoxyostrobin: No adverse effect has been observed in chronic toxicity tests.

Carcinogenicity
Azoxyostrobin: Did not show carcinogenic effects in animal experiments.

<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>Limestone (Dolomitic)</td>
<td>No</td>
</tr>
<tr>
<td>Wood Dust</td>
<td>IARC Group 1</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>No</td>
</tr>
<tr>
<td>Methyl (E)-2-[2-6-(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl]-3-methoxyacrylate</td>
<td>No</td>
</tr>
</tbody>
</table>

Other Toxicity Information
None

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.

Limestone (Dolomitic)
Results in skin irritation with a sensitizing (allergic) reaction.

Other ingredients
Not Applicable
Wood Dust
Wood dust may cause mechanical irritation to the eye. Wood dust of certain species can elicit allergic contact dermatitis in sensitized individuals. Inhalation of wood dust may cause obstruction in nasal passages. May cause respiratory tract irritation.

Target Organs

**Active Ingredients**
- Azoxyystrobin: Liver

**Inert Ingredients**
- Crystalline Silica, Quartz and Cristobalite: Respiratory tract
- Limestone (Dolomitic): Skin
- Other ingredients: Not Applicable
- Wood Dust: Eye, skin, nasal passages, respiratory tract

12. ECOLOGICAL INFORMATION

**Eco-Acute Toxicity**
- Azoxyystrobin:
  - Fish (Rainbow Trout) 96-hour LC50 470 ppb
  - Green Algae 5-day EC50 106 ppb
  - Invertebrate (Water Flea) 48-hour EC50 259 ppb
  - Bird (Mallard Duck) 14-day LD50 > 250 mg/kg

**Environmental Fate**
- The information presented here is for the active ingredient, azoxystrobin.

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 (IMDG) - International
- Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S. (Azoxystrobin), Marine Pollutant
- Hazard Class: Class 9
- Identification Number: UN 3077
- Packing Group: PG III
Air Transport - International
Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S. (Azoxystrobin)
Hazard Class: Class 9
Identification Number: UN 3077
Packing Group: PG III
Note: This product is currently not regulated for airfreight within the NAFTA region. However, effective 01/01/2011 the above classification must be used.

European Road/Rail (ADR/RID)
Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S. (Azoxystrobin)
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: Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

EPA Registration Number(s):
100-1323

EPCRA SARA Title III Classification:
Section 311/312 Hazard Classes: Acute Health Hazard
Section 313 Toxic Chemicals: None

California Proposition 65:
This product contains a chemical known to the State of California to cause cancer.

CERCLA/SARA 304 Reportable Quantity (RQ):
None

16. OTHER INFORMATION
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.