

HEADWAY® G

Date: 7/15/2015
 Replaces: 3/19/2015

1. PRODUCT IDENTIFICATION

Product identifier on label: **HEADWAY® G**
 Product No.: A17869A
 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

Hazard Symbols:



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 form combustible dust concentrations in air.

HEADWAY® G

Date: 7/15/2015
Replaces: 3/19/2015

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
Wood Dust	Wood Dust	Not Applicable	Trade Secret
Other ingredients	Other ingredients	Trade Secret	<98.94%
Magnesite	Dolomitic Limestone	546-93-0	Trade Secret
Methyl (E)-2-{2-[6-(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate	Azoxystrobin	131860-33-8	0.31%
1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]methyl]-1H-1,2,4-triazole	Propiconazole	60207-90-1	0.75%

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.

HEADWAY® G

Date: 7/15/2015
 Replaces: 3/19/2015

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:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Wood Dust	15 mg/m ³ TWA (total), 5 mg/m ³ (resp)	1 mg/m ³ TWA (inhalable dust)	1 mg/m ³ TWA (REL)	NIOSH
Other ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Dolomitic Limestone		Not Established	5 mg/m ³ (Respirable), 10 mg/m ³ (Total)	NIOSH
Azoxystrobin	Not Established	Not Established	4 mg/m ³ TWA	Syngenta
Propiconazole	Not Established	Not Established	5 mg/m ³ TWA	Syngenta

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.

HEADWAY® G

Date: 7/15/2015

Replaces: 3/19/2015

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: Aromatic

Odor Threshold: Not Available

pH: 6.6 (1% solution 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 Available

Flammable Limits (% in Air): Not Available

Flammability: Not Available

Vapor Pressure: Azoxystrobin 8.25 x 10⁽⁻¹³⁾ mmHg @ 68°F (20°C)Propiconazole 4.2 x 10⁽⁻⁷⁾ mmHg @ 77°F (25°C)

Vapor Density: Not Available

Relative Density: 0.81 - 0.83 g/ml

Solubility (ies): Azoxystrobin 6 mg/l in water @ 68°F (20°C)

Propiconazole 0.1 g/l @ 68°F (20°C)

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.

HEADWAY® G

Date: 7/15/2015

Replaces: 3/19/2015

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))

Ingestion: Oral (LD50 Female Rat) : > 5000 mg/kg body weight
 Dermal: Dermal (LD50 Rat) : > 5000 mg/kg body weight
 Inhalation: Inhalation (LC50 Rat) : Not Available
 Eye Contact: Mildly Irritating (Rabbit)
 Skin Contact: Slightly Irritating (Rabbit)
 Skin Sensitization: Not a Sensitizer (Guinea Pig)

Reproductive/Developmental Effects

Azoxystrobin : Did not show reproductive toxicity effects in animal experiments.
 Propiconazole: None observed.

Chronic/Subchronic Toxicity Studies

Azoxystrobin : No adverse effect has been observed in chronic toxicity tests.
 Propiconazole: None observed.

Carcinogenicity

Azoxystrobin : Did not show carcinogenic effects in animal experiments.
 Propiconazole: Increased hepatocellular adenomas, combined adenomas/carcinomas, and hepatocellular carcinomas observed in male mice in a chronic oral feeding study. However, animals in the high dose group for this study showed excessive toxicity; furthermore, the high dose exceeded the Maximum Tolerated Dose determined in the 90-day range finding study. No treatment-related tumors were seen in female mice in this mouse chronic feeding study. No tumors were noted in a chronic rat study.

Chemical Name	NTP/IARC/OSHA Carcinogen
Wood Dust	IARC Group 1
Other ingredients	No
Magnesite	No
Methyl (E)-2-{2-[6-(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate	No
1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]methyl]-1H-1,2,4-triazole	No

Other Toxicity Information

None

Toxicity of Other Components

Dolomitic Limestone

HEADWAY® G

Date: 7/15/2015
 Replaces: 3/19/2015

Exposure to limestone dust may cause irritation to the moist mucous membranes of the nose, throat, and upper respiratory system. Limestone may contain trace amounts of free crystalline silica. Prolonged exposure to respirable free silica can aggravate other lung conditions and cause silicosis, a disabling and potentially fatal lung disease.

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

Azoxystrobin : Liver
 Propiconazole: Liver

Inert Ingredients

Dolomitic Limestone: Respiratory Tract
 Other ingredients: Not Applicable
 Wood Dust : Eye, skin, nasal passages, respiratory tract

12. ECOLOGICAL INFORMATION

Eco-Acute Toxicity

Azoxystrobin :

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

Propiconazole:

Fish (Rainbow Trout) 96-hour LC50 0.83 ppm
 Invertebrate (Water Flea) 48-hour EC50 3.2 ppm
 Green Algae 9-day EC50 0.72 ppm
 Bird (Mallard Duck) 14-day LD50 2510 mg/kg

Environmental Fate

Azoxystrobin :

The information presented here is for the active ingredient, azoxystrobin.
 Low bioaccumulation potential. Not persistent in soil. Stable in water. Moderate mobility in soil. Sinks in water (after 24 h).

Propiconazole:

The information presented here is for the active ingredient, propiconazole.
 Low bioaccumulation potential. Not persistent in soil. Stable in water. Low mobility in soil. Sinks in water (after 24 h).

HEADWAY® G

Date: 7/15/2015

Replaces: 3/19/2015

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. (Azoxystrobin), 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. (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: Causes moderate eye irritation. Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

EPA Registration Number(s):

100-1378

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: Propiconazole 0.75% (CAS No. 60207-90-1)

CERCLA/SARA 304 Reportable Quantity (RQ):

None

RCRA Hazardous Waste Classification (40 CFR 261):

Not Applicable

HEADWAY® G

Date: 7/15/2015
Replaces: 3/19/2015

TSCA Status:
Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 1
Flammability: 1
Instability: 0

HMIS Hazard Ratings

Health: 1
Flammability: 1
Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme
*	Chronic

Syngenta Hazard Category: D

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 5/7/2010
Revision Date: 7/15/2015 Replaces: 3/19/2015
Section(s) Revised: 2, 4, 11, 16

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.