# CAUTION

KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING



# syngenta

### **ACTIVE CONSTITUENTS: 500g AZOXYSTROBIN**

### 11.8g ACIBENZOLAR-S-METHYL

Heritage® Action is a water-dispersible granule (WG) formulation.

GROUP 11 P01 FUNGICIDE

For the broad spectrum control of various diseases of turf as per the Directions for Use

IMPORTANT: Read the attached booklet before use **1 KG** 

Imported By:

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# KEEP OUT OF REACH OF CHILDREN. CAUTION

See additional precautionary statements and directions for use [inside booklet] [on label].

Reformulation is prohibited. See individual container labels for repackaging limitations.

1 kg

FIRST AID				
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15–20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15–20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
Have the product container or label with you when calling a poison control center or				

doctor, or going for treatment.

### **Emergency Hotline**

For 24-Hour Medical Emergency Assistance call +65 6334 4366

### PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

### **CAUTION**

Causes moderate eye irritation. Do not get in eyes or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Wear protective eyewear, long sleeved shirt and long pants, socks and shoes. Remove and wash contaminated clothing before reuse.

### Personal Protective Equipment (PPE)

Some materials that are chemically resistant to this product are listed below.

## Applicators and other handlers must wear:

- Protective eyewear
- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber.
- Shoes plus socks

### **User Safety Requirements**

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

# User Safety Recommendations Users should:

- Wash hands before eating, drinking, , using tobacco or using the toilet. Wash thoroughly with soap and water after handling.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### **Environmental Hazards**

This pesticide is toxic to freshwater and estuarine/marine fish and aquatic invertebrates. Azoxystrobin can be persistent for several months or longer. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water or rinsate.

### **Groundwater Advisory**

Azoxystrobin and a degradate of azoxystrobin are known to leach through soil to groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

## **Surface Water Advisory**

This product may impact surface water quality due to run-off of rain water. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having a high potential for reaching surface water via run-off for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features, such as ponds, streams and springs, will reduce the potential loading of azoxystrobin and a degradate of azoxystrobin from run-off water and sediment. Run-off of this product also will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

Notify local environmental authorities and Syngenta immediately if you observe any adverse environmental effects due to the use of this product.

### **Physical or Chemical Hazards**

Do not use with or store near any oxidizing agents. Hazardous chemical reactions may occur.

### **DIRECTIONS FOR USE**

It is a violation of local regulation to use this product in a manner inconsistent with its labeling.

# FAILURE TO FOLLOW THE USE DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY OR POOR DISEASE CONTROL.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### **TURFGRASS USES**

Broad-spectrum, systemic fungicide for the prevention and control of turf diseases on golf courses, sod farms, institutional, commercial and industrial buildings, and athletic fields

### PRODUCT INFORMATION

Heritage Action couples a broad-spectrum, systemic fungicide with a systemic compound used for control or suppression of disease through induction of host plant resistance. Heritage (azoxystrobin) is a broad-spectrum, systemic fungicide that prevents and controls pathogens causing foliar, stem, and root diseases, including leaf and stem blights, leaf spots, patch diseases, mildew, molds and rusts of turfgrass. Action (acibenzolar) exhibits an additional unique mode of action, beyond Heritage alone, which mimics the natural systemic activated resistance (SAR) response found in most plant species. This SAR response does not involve direct activity against the target pathogens.

(Heritage Action is a member of Syngenta's Plant Performance™ product line that may improve plant vigor and quality. The additional benefits are due to positive effects on plant physiology, which can vary according to plant species and growing environment.)

Heritage Action fungicide may be used to control these diseases on golf courses, sod farms, institutional, public, commercial and industrial buildings, and collegiate and professional athletic fields. Heritage Action may be applied as a foliar spray in alternating spray programs or in tank mixes with other registered turf-protection products.

### **USE PRECAUTIONS AND RESTRICTIONS**

**DO NOT** apply more than 11.2 kg product per hectare per year **DO NOT** apply more than 1.2kg Heritage per hectare per application.

**DO NOT** apply by air.

**DO NOT** graze or feed clippings from treated turf areas to animals.

### SPRAY DRIFT MANAGEMENT

**DO NOT** spray when conditions favor drift beyond area intended for application.

**DO NOT** apply when weather conditions favor drift from treated areas to non-target aquatic habitat. Conditions that contribute to drift include thermal inversion, wind speed and direction, sprayer nozzle/pressure combinations, and spray droplet size. Contact your State extension agent for spray drift prevention guidelines in your area.

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

### **PHYTOTOXICITY**

Heritage Action is extremely phytotoxic to certain apple and crabapple varieties. Extreme care must be used to prevent injury to apple and crabapple trees. Even trace amounts can cause unacceptable phytotoxicity. **DO NOT** spray Heritage Action where spray drift may reach apple or crabapple trees.

Heritage Action has demonstrated some phytotoxic effects when mixed with products that are formulated as EC's. These effects are enhanced if applications are made under cool, cloudy conditions and these conditions remain for several days following application. In addition, adjuvants that contain some form of silicone have also contributed to phytotoxicity.

### INTEGRATED PEST (DISEASE) MANAGEMENT (IPM)

Sound turf management resulting in healthy, vigorous turf is the foundation of a good IPM program. Cultural practices such as proper choice of turf variety, nutrient management, proper cutting height, thatch management, and proper watering, drainage, and moisture stress management should be integrated with the use of fungicides to increase turf vigor and reduce the susceptibility to disease. (Disease diagnostic services can assist in the early and accurate identification of causal organisms and corresponding selection of the proper fungicide when required.)

### RESISTANCE MANAGEMENT

Heritage Action exhibits two modes of action. Plant pathogens are known to develop tolerance to host plant resistance and to products used repeatedly for control. The use of Heritage Action should conform to sensitivity management strategies established for crops and use areas due to its two modes of activity. Heritage Action should be applied in a tank mix or alternation program with other registered fungicides that have a different mode of action and to which pathogen resistance has not developed. Since Heritage Action contains a strobilurin fungicide, avoid alternation with other strobilurins. Do not apply more than two sequential Heritage Action applications for Gray leaf spot and Pythium disease control. For all other diseases when Gray leaf spot and Pythium diseases are not present, do not apply more than three sequential applications of Heritage Action.

### MIXING INSTRUCTIONS

Thoroughly clean spray equipment before using this product to prevent possible crop injury or nozzle clogging problems from spray tank contamination. To prepare spray solution, partially fill the spray tank with clean water and begin agitation. Add the specified amount of Heritage Action to the tank allowing adequate time for good dispersion and then add an adjuvant if recommended. Vigorous agitation is necessary for proper dispersal of the product. Maintain maximum agitation throughout the spraying operation. Do not let the spray solution stand overnight in the spray tank. Do not prepare more spray solution than is needed for the immediate spray operation. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

Heritage Action is compatible with many commonly used fungicides, liquid fertilizers, herbicides, insecticides and biological control products. If tank mixes are desired, observe all directions, precautions, and limitations on labeling of all products used. Consult your local Syngenta representative for compatibility information. Do not combine Heritage Action in the spray tank with any product unless compatibility charts or your own prior use has shown that the combination is physically compatible, effective and non-phytotoxic under your conditions of use. If physical compatibility is unknown, the following testing procedure should be followed: pour the recommended proportions of the products into a suitable container of water, mix thoroughly and allow it to stand for at least 20 minutes. If the combination remains mixed or can be re-mixed readily, the mixture is considered physically compatible.

Products should be added to the spray tank in the following order: Heritage Action, other WG or dry flowable formulations, wettable powders and flowable (aqueous suspensions) products. Finish filling the tank to the desired volume to obtain the proper spray concentration. Maintain agitation throughout the spraying operation. Do not allow spray mixture to stand overnight or for prolonged periods. Make up only the amount of

spray required for immediate use. Sprayers should be thoroughly cleaned immediately after application.

### **APPLICATION INSTRUCTIONS**

Heritage Action should be applied prior to disease development. Heritage Action mimics the SAR response in plants. Maximum disease control is normally obtained 4 days after a Heritage Action application. Apply Heritage Action at rates and timings given on this label. Use the shortest specified application interval and/or the highest specified rate under conditions of heavy infection pressure, highly susceptible varieties, or when environmental conditions conducive to disease exist. Repeat applications at specified intervals for as long as required. Mix Heritage Action with the required amount of water and apply as a dilute spray application in 600 – 1000 L of water perhectare. Proper adjustments and calibration of spraying equipment is essential for best disease control. For spot treatments, use 15g Heritage Action per 10 to 20 L of water.

# For use in the establishment of turfgrass from seed or in overseeding of dormant turfgrass:

Heritage Action may be used for control of certain turfgrass diseases associated with turfgrass establishment from seed. Heritage Action may also be used during overseeding of dormant turfgrass.

Heritage Action may be safely applied before or after seeding or at seedling germination and emergence to ryegrass, bentgrass, bluegrass, and fescue turfgrass types. Optimum application timing is during seeding.

**TABLE 1: Use Rates and Timings for Listed Diseases** 

Target Diseases <sup>1</sup>	Use Rate (KG product per Ha)	Application Interval (days)	Remarks
Bermudagrass Decline / Take-all Patch (Gaeumannomyces graminis var. graminis)	1.2	28	Use preventatively. Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
Fairy Ring (Lycoperdo, Arachnion, Bovista, Vascellum, and Agrocybe spp.)	1.2	28	Apply preventatively or as soon as possible after fairy ring symptoms develop. Apply with at least 1000 l/ha water volume. Add the recommended rate of a wetting agent to the final spray. Fairy ring symptoms may take 2 to 3 weeks to disappear following curative applications and reapplication may be required in some cases.
Fusarium Patch ( <i>Microdochium nival</i> )	0.6 -1.2	14–28	Use preventatively. Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
Gray Leaf Spot (Pyricularia grisea)	0.6 -1.2	14–28	Begin applications before disease is present and continue applications while conditions are favorable for disease development.
Leaf Rust Stem Rust Stripe Rust (Puccinia spp.)	0.6 -1.2	14–28	Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
Leaf spot (Bipolaris spp.)	00.6 -1.2	14–21	Apply when conditions are favorable for disease development.
Pink Patch (Limonomyses roseipellis)	0.6 -1.2	14–28	Apply when conditions are favorable for disease development.
Powdery Mildew (Erysiphe graminis)	0.6-1.2	14–28	Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
Pythium Blight Pythium Root Rot (Pythium spp.)	0.6-1.2	10–14	Use preventatively. Begin applications before disease is present. During periods of prolonged favorable conditions, treat on the 10 day application interval. For use on newly seeded as well as established turf.

Target Diseases <sup>1</sup>	Use Rate (KG product per Ha)	Application Interval (days)	Remarks
Pythium Root Dysfunction (Pythium volutum)	1.2	21–28	Use preventatively. Begin applications before disease is present. Irrigate 2.5 mm to 5mm of water within 24 hours after application to facilitate movement into the root zone.
Red Thread (Laetisaria fuciformis)	0.6-1.2	14–28	Apply when conditions are favorable for disease development.
Rhizoctonia Large Patch/Zoysia Patch (Rhizoctonia solani)	0.6-1.2	14–28	Make one or two applications when conditions are favorable for disease development
Leaf and Sheath Spot (Waitea zeae)	0.6-1.2	14–28	Apply when disease conditions are favorable for disease development.
Dollar Spot Suppression (Sclerotina homoeocarpa)	0.2–0.4	14–28	Heritage Action will suppress dollar spot. For effective control, always mix Heritage Action with Daconil®, Velista® or another Dollar Spot control fungicide

<sup>1</sup>Do not apply more than two sequential applications of Heritage Action for control of Gray leaf spot and Pythium diseases. For all other diseases when Gray leaf spot and Pythium diseases are not present, do not apply more than three sequential applications of Heritage Action.

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

### **Pesticide Storage**

Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill on floor or paved surfaces, sweep and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to the label.

### Pesticide Disposal

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of law. If these wastes cannot be disposed of by use according to label instructions, contact your local Environmental Control Agency, for guidance.

### Container Handling [less than or equal to 50 pounds]

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix

tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

## **Container Handling [bags]**

Non-refillable container. Do not reuse or refill this container. Completely empty bag into application equipment.

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER.

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