

PYRACLOSTROBIN GROUP **11** FUNGICIDE

# Ribbon

**FUNGICIDE**

For Disease Control in Turfgrass and Ornamentals.

ACTIVE INGREDIENT:	WT. BY %
Pyraclostrobin: (carbamic acid, [2-[[[1-(4-chlorophenyl)-1H-pyrazol-3-yl]oxy]methyl]phenyl]methoxy-,methyl ester)	20.0%
OTHER INGREDIENTS:	80.0%
TOTAL:	100.0%
*This product contains 0.200 oz. (0.0125 lb.) of pyraclostrobin in 1 oz.	

**KEEP OUT OF REACH OF CHILDREN /  
MANTÉNGASE FUERA DEL  
ALCANCE DE LOS NIÑOS  
CAUTION / PRECAUCIÓN**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you **DO NOT** understand this label, find someone to explain it to you in detail.)

See label booklet for complete First Aid, Precautionary Statements,  
Directions For Use, and Storage and Disposal.

EPA Reg. No. 83529-316 EPA Est. No. **AG** 72159-GA-001; **MC** 89332-GA-001; **SC** 39578-TX-001  
The EPA Establishment Number is identified by the circled letters above that match the first two letters in the batch number.

Manufactured For:

**Sharda USA LLC**



7217 Lancaster Pike, Suite A, Hockessin, Delaware 19707

Net Contents: **7.2 lbs.**

<b>FIRST AID</b>	
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• <b>DO NOT</b> induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• <b>DO NOT</b> give anything by mouth to an unconscious person.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <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>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <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>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth to mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>HOTLINE NUMBER</b>	
<p>Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call your poison control center at <b>1-800-222-1222</b>.</p>	

## **PRECAUTIONARY STATEMENTS**

### **HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

#### **CAUTION**

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

#### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Waterproof gloves made of barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, natural rubber  $\geq$  14 mils, polyethylene, polyvinyl chloride (PVC)  $\geq$  14 mils, or Viton  $\geq$  14 mils
- 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.

## ENGINEERING CONTROLS STATEMENT

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### USER SAFETY RECOMMENDATIONS

#### Users should:

- 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 fish and aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. **DO NOT** apply directly to water, areas where surface water is present, or intertidal areas below the mean high-water mark. **DO NOT** contaminate water when disposing of equipment wash waters or rinsate.

### Groundwater Advisory

This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

This product may contaminate water through drift of spray in wind. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential for contamination of water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecast to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

### Surface Water Advisory

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This

product is classified as having high potential for reaching surface water via runoff 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 including ponds, streams, and springs will reduce the potential loading of boscalid and pyraclostrobin from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

## DIRECTIONS FOR USE

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

**DO NOT** use 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.

For use only by commercial applicators or persons under their direct supervision.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 hours**.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, including plants, soil, or water is:

- Coveralls
- Waterproof gloves made of barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, natural rubber  $\geq$  14 mils, polyethylene, polyvinyl chloride (PVC)  $\geq$  14 mils, or Viton  $\geq$  14 mils
- Shoes plus socks

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

**DO NOT** enter treated areas without protective clothing until sprays have dried.

### PRODUCT INFORMATION

This product is **Ribbon**, a water-dispersible granule (WG). The active ingredient in this product, pyraclostrobin, is derived from a natural antifungal substance and is a member of the strobilurin class of chemistry. Use **Ribbon** in a regularly scheduled protective spray program and use in a rotation program with other fungicides to maximize disease control. **Ribbon** has good residual activity against target fungi because of its high specific activity.

**Ribbon** is a broad-spectrum fungicide for the control of many important diseases of turfgrass and ornamentals. Use **Ribbon** preventively for maximum efficacy. **Ribbon** may be used as a solo treatment or in tank mixes with other registered fungicides. **DO NOT** exceed the specified application rate or fail to comply with use restrictions listed in the **Restrictions** and **RESISTANCE MANAGEMENT** sections. All applications must be made according to the use directions that follow. Failure to follow directions and precautions on this label may result in injury and/or inferior disease control.

#### Use Sites:

- **Turfgrass - Ribbon** may be applied for disease control in the following turf use sites: Lawns, Parks, Recreational areas including sports and athletic fields, Cemeteries, Golf courses, Residential, institutional, commercial, and municipal, and Sod farms.
- **Ornamental Plants - Ribbon** may be applied for disease control on ornamentals, including flower bulbs, forest and conifer nurseries and plantations. Use sites include: Outdoor nurseries, Lathhouses and shadehouses, Containers, Residential and commercial landscapes, Retail nurseries, Greenhouses, Interiorscapes, and Recreational areas including golf courses.

#### Restrictions (Turfgrass):

- **Maximum seasonal Use Rate - DO NOT** use more than a total of 5.5 ounces of **Ribbon** per 1,000 sq. ft. per year (15 pounds **Ribbon** per acre per year).
- Refer to **Table 1** for sequential application intervals for **Ribbon**.
- **DO NOT** apply on crops intended for food or feed use.
- **DO NOT** use through any type of irrigation equipment to turfgrass.
- **DO NOT** use by air in turf uses other than sod farms.
- **DO NOT** apply this product to formulate or reformulate any other pesticide product.

- **Resistance Management - DO NOT** make more than 2 sequential applications of **Ribbon** for Pythium blight, gray leaf spot, dollar spot, or anthracnose. Then alternate to an effective nonstrobilurin fungicide before reapplying **Ribbon**. **DO NOT** make more than 3 consecutive applications of **Ribbon** for all other turf-grass diseases. Then alternate to an effective nonstrobilurin fungicide before reapplying **Ribbon**.

#### Restrictions (Ornamental Plants):

- For outdoor uses, **DO NOT** use more than a total of 15 pounds of **Ribbon** per acre per year.
- For greenhouse uses, **DO NOT** use more than 8 applications of **Ribbon** per year.
- **DO NOT** use on plants that show injury (leaf phytotoxicity or plant stunting) produced by prior pesticide use.
- **DO NOT** apply on crops intended for food or feed use.
- **DO NOT** spray by air in ornamental uses other than production ornamentals. Use sites permitted include: Container and field nurseries, Flower bulb production, and Forest and conifer nurseries.
- **DO NOT** apply in vegetables grown in greenhouses for crop production, or in vegetable production of transplants for outdoor use.
- **DO NOT** expose wintercreeper (*Euonymus vegetus*) and nine bark (*Physocarpus opulifolius*) to spray or drift containing **Ribbon** or injury may result.
- **DO NOT** expose Concord, Worden, Fredonia or Niagara grapes, or related varieties, to spray or drift containing **Ribbon** or injury may result.
- Be cautious when applying **Ribbon** to impatiens (*Impatiens* spp.) and petunia (*Petunia* spp.) during flowering as discoloration may occur.
- **Resistance Management - DO NOT** make more than 2 sequential applications of **Ribbon**. Then alternate with a fungicide of a different mode of action before reapplying **Ribbon**. **DO NOT** alternate **Ribbon** with other Group 11 fungicides.

#### FUNGICIDE RESISTANCE MANAGEMENT

PYRACLOSTROBIN	GROUP	<b>11</b>	FUNGICIDE
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Pyraclostrobin, the active ingredient in **Ribbon** is a QoI (Group 11) fungicide. It is efficacious against fungal diseases that have shown resistance to other (non-Group-11) fungicides (including benzimidazoles, dicarboximides, phenylamides, or sterol inhibitors). However, fungal populations can also contain fungal isolates resistant to Group 11 fungicides, and repeated and favored use of Group 11 fungicides (including azoxystrobin fluoxastrobin, kresoxim-methyl, pyraclostrobin or trifloxystrobin) as the primary means of control for successive years can allow these resistant isolates to flourish and build up in the general fungal population, and can lessen fungicidal activity by Group 11 fungicides including **Ribbon**.

To help combat resistance management, exercise some or all of the following steps in your fungal control program:

- Observe all use rates and restrictions for **Ribbon** as indicated in directions for use. Follow label instructions carefully and **DO NOT** exceed listed maximum rates or applications.
- Follow label instructions listed pertaining to consecutive applications of this product. **DO NOT** exceed maximum listed consecutive applications.
- When observing label instructions regarding specific consecutive applications, alternate use of this product (and other Group 11 fungicides) with a minimum of an equal number of applications of a non-group 11 fungicide before using a Group 11 fungicide again on a listed use site.
- When using a Group 11 fungicide alone, it must not comprise more than 1/3 of the total number of fungicide treatments per year to a certain use site.
- When using Group 11 fungicides with other tank mix partners, or in a fungicide spraying program with other solo products or mixtures, the Group 11 fungicide must not comprise more than 1/2 of the total number of fungicide treatments per year to a certain use site.

To help slow the development of resistant fungal isolates, exercise some or all of the following:

- Use **Ribbon** with fungicide tank mix partners having different modes of action.
- Ensure that minimum labeled rates of **Ribbon** and other fungicides are used.
- Develop and implement an IPM (Integrative Pest Management) program for overall disease control. IPM programs include application of fungicides, adherence to cultural practices known to diminish fungal occurrence, timing of fungicide applications based on environmental conditions favorable for occurrence of fungal diseases (check for agricultural extension advisory programs in your area to help determine application timing).
- Monitor and document the effectiveness of fungicides used against fungal diseases, along with any other environmental conditions or other influential factors. If efficacy of **Ribbon** or other Group 11 (or non-group 11) fungicide appears to be reduced, consult with and provide this information to a certified advisor, extension specialist, or Sharda USA LLC representative.

## MANDATORY SPRAY DRIFT MANAGEMENT

### **Aerial Applications:**

- **DO NOT** release spray at a height greater than 10 ft. above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select nozzle and pressure that deliver a medium or coarser droplet size (ASABE S641).
- **DO NOT** apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- If the windspeed is 10 miles per hour or less, applicators must use 1/2 swath displacement upwind at the downwind edge of the field. When the windspeed is between 11 - 15 miles per hour, applicators must use 3/4 swath displacement upwind at the downwind edge of the field.
- **DO NOT** apply during temperature inversions.

### **Airblast Applications:**

- Sprays must be directed into the canopy.
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- User must turn off outward pointing nozzles at row ends and when spraying outer row.
- **DO NOT** apply during temperature inversions.

### **Ground Boom Applications:**

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to select nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572).
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

## SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

### **IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions (see **Wind, Temperature and Humidity**, and **Temperature Inversions** sections).

### **Controlling Droplet Size – Ground Boom**

- **Volume** – Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** – Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** – Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.
- **Number of Nozzles** – Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is recommended practice. Significant deflection from the horizontal will reduce droplet size and increase drift potential.

### **Boom Height – Ground Boom**

For ground equipment, the boom must remain level with the crop and have minimal bounce.

### **Boomless Ground Applications**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

### **Controlling Droplet Size – Aircraft**

- **Adjust Nozzles** – Follow nozzle manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles must be oriented parallel with the airflow in flight.
- **Spray Nozzle** – Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.
- **Number of Nozzles** – Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is recommended practice. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid-stream nozzles oriented straight back produce the largest droplets and the lowest drift.

### **Release Height – Aircraft**

Higher release heights increase the potential for spray drift.

### **Shielded Sprayers**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

### **Handheld Technology Applications**

Take precautions to minimize spray drift.

### **Wind**

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.** Drift potential is lowest when wind speed does not exceed 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Avoid applications below 2 mph due to variable wind direction and high inversion potential. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

### **Temperature and Humidity**

Low humidity and high temperatures increase the evaporation of spray droplets and, therefore, the likelihood of increased spray drift. Avoid spraying during conditions of low humidity and/or high temperatures. When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry. When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

### **Temperature Inversions**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

### **Sensitive Areas**

The pesticide must only be applied when the potential for drift to adjacent sensitive areas (e.g., bodies of water or non-target crops) is minimal and when wind is blowing away from the sensitive areas.

## **APPLICATION INSTRUCTIONS**

Apply the specified rate of **Ribbon** as instructed in the **USE DIRECTIONS** sections with ground or aerial spray equipment. When prolonged favorable disease conditions exist, use the shorter specified application interval and/or the higher specified rate.

Spray **Ribbon** using sufficient water volume and pressure for adequate coverage of the foliage.

Calibrate spray equipment prior to use.

Use **Ribbon** prior to or in the early stages of disease development for maximum efficacy. Use of **Ribbon** as a late curative or eradicator treatment may not result in satisfactory disease control.

After spraying, allow foliage to dry prior to mowing or irrigating (exceptions: see brown ring patch, fairy ring and Pythium root dysfunction).

Actual length of disease control will vary depending on disease pressure, environmental conditions, and management practices.

### **Ground Application**

Spray **Ribbon** at the rates indicated in the **USE DIRECTIONS** sections in 2 - 4 gallons of water per 1,000 square feet (87 - 174 gallons per acre). Repeat applications at the specified interval, as necessary.

### **Aerial Application**

Aerial application is permitted only on sod farms and the following production ornamentals: Container and field nurseries, Flower bulb production, and Forest and conifer nurseries.

Spray **Ribbon** at the rates indicated in the **USE DIRECTIONS** sections in no less than 10 gallons of spray solution per acre. Repeat applications at the specified interval, as necessary. **DO NOT** apply when conditions favor drift from target area.

**DO NOT apply by air in New York State except as permitted under FIFRA Section 24(c), Special Local Need Registration.**

## **SPRINKLER AND DRIP IRRIGATION APPLICATIONS**

### **Drip Irrigation**

**Ribbon** may be used through drip irrigation systems to potted ornamentals or to bedded, field-grown ornamentals for soilborne disease control. Apply 8 - 16 oz. **Ribbon** per acre as a preventive disease application. The soil or potting media must have adequate moisture capacity prior to drip application.

Stop drip irrigation at fungicide depletion from the main feed supply tank or after 6 hours from start, whichever is shorter. For maximum efficacy, subsequent irrigation (water only) must be delayed for at least 24 hours following drip application.

### **Sprinkler Irrigation**

**Ribbon** may be used through sprinkler irrigation to turf, to potted ornamentals, or to bedded, field-grown ornamentals. Apply this product through sprinkler irrigation systems, including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. **DO NOT** apply this product through any other type of irrigation system except as specified on this label.

Use with center pivot or continuous-move equipment distributing 1/2 acre-inch or less during treatment. In general, use the least amount of water required for proper distribution and coverage. If stationary systems (solid set, handlines or wheel lines other than continuous-move) are used, inject this product into no more than the last 20 - 30 minutes of the set. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment. Non-uniform treated water may result in plant injury, lack of effectiveness, or illegal pesticide residues in the crop.

For good control, thorough coverage of foliage is required. Maintain good agitation during the entire application period. If you have questions about calibration, contact a State Extension Service specialist, equipment manufacturers or other experts. The system must contain a functional check valve, vacuum-relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Unless the pesticide label-prescribed safety devices for public water systems are in place, **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

### **Specific Instructions for Public Water Systems**

- Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional reduced-pressure zone back-flow preventer (RPZ) or the functional

equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system must be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

- The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- **DO NOT** use when wind speed favors drift beyond the area intended for treatment.

#### **TANK MIXING INFORMATION**

**Ribbon** is compatible with most fungicide, insecticide, and fertilizer products. Adhere to rate restrictions, label recommendations and requirements, and precautions on all labels if tank mixtures are used.

Mixing **Ribbon** with fungicides, herbicides, insecticides, additives, or fertilizers may result in physical incompatibility, reduced disease control, or plant injury. **Ribbon** may be tank mixed with other effective (nonstrobilurin) fungicides to improve control of certain diseases.

#### **Addition of Additives**

**DO NOT** use with organosilicate-based adjuvants or injury may occur. Due to the large number of additives or adjuvants that may be used, neither the manufacturer nor the seller has determined whether **Ribbon** can be used safely with all additives.

### Compatibility Test for Tank Mix Components

Add components in the following sequence using 2 teaspoons for each pound or 1 teaspoon for each pint of label rate per acre.

1. **Water** - For 87 gals. per acre spray volume, use 14.4 cups (3.5 liters) of water. For other spray volumes, adjust rates accordingly. Use only water from the intended source at the source temperature.
2. **Water-Dispersible Products** (dry flowables, wettable powders, suspension concentrates, or suspoemulsions) - Cap the jar and invert 10 cycles.
3. **Water-Soluble Products** - Cap the jar and invert 10 cycles.
4. **Emulsifiable Concentrates** (oil concentrate or methylated seed oil when applicable) - Cap the jar and invert 10 cycles.
5. **Water-Soluble Additives** - Cap the jar and invert 10 cycles.
6. Let the solution stand for 15 minutes.
7. **Evaluate** the solution for uniformity and stability. The spray solution must not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. **DO NOT** use any spray solution that could clog spray nozzles.

### Mixing Order

Limit amount of spray mixture prepared to that needed for immediate use.

1. **Water** - Begin by agitating a thoroughly clean sprayer tank half full of clean water.
2. **Products in PVA Bags** - Place the water-soluble PVA bag into the mixing tank. The water-soluble PVA bag will dissolve in water to allow the contents to disperse. Wait until all water-soluble PVA bags have fully dissolved, and the product is evenly mixed in the spray tank before continuing.
3. **Water-Dispersible Products** (dry flowables including **Ribbon**, wettable powders, suspension concentrates, or suspo-emulsions)
4. **Water-Soluble Products**
5. **Emulsifiable Concentrates** (oil concentrate or methylated seed oil when applicable)
6. **Water-Soluble Additives** (AMS or UAN when applicable)
7. Remaining quantity of **water**

Maintain maximum constant agitation during application.

**DO NOT allow mixture to stand for extended periods prior to application.**

### Cleaning Spray Equipment

Spraying equipment must be cleaned thoroughly before and after applying this product, particularly if a product with the potential to injure turfgrass was used prior to **Ribbon**.

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## TURFGRASS - USE DIRECTIONS

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**Ribbon** controls anthracnose, bentgrass dead spot, Bermudagrass decline, brown patch, brown ring patch, dollar spot (suppression only), fairy ring, Fusarium patch, gray leaf spot, gray snow mold, large patch, leaf spot, melting out, necrotic ringspot, pink patch, pink snow mold, powdery mildew, Pythium blight, Pythium root dysfunction, rapid blight, red thread, Rhizoctonia leaf or sheath spot, rust, summer patch, take-all patch, and yellow tuft (downy mildew).

**Ribbon** provides significant suppression but not complete control of dollar spot. When used to control other diseases and dollar spot pressure is moderate to severe, tank mix **Ribbon** with another effective (nonstrobilurin) fungicide. For optimum control of gray snow mold and pink snow mold, tank mix **Ribbon** with another effective (nonstrobilurin) fungicide.

### Turfgrass Uses and Tolerance

Due to variability within turfgrass species, application techniques and possible tank mixes, neither the manufacturer nor the seller has determined if **Ribbon** can safely be used on all turfgrasses under all conditions.

Therefore, it is recommended that the user determine if **Ribbon** can be used safely before broad use. Apply the specified labeled use rate of **Ribbon** on a small test area under conditions expected to be encountered. Monitor for any adverse effects during a 14-day period after application.

### Rate

Use the application rates specified for each disease as listed in **Table 1**. Apply **Ribbon** in 2 - 4 gals. of water per 1,000 square feet (87 - 174 gals. per acre).

### Restrictions:

- **Maximum Seasonal Use Rate - DO NOT** apply more than a total of 5.5 oz. of **Ribbon** per 1,000 sq. ft. per year (15 lbs. **Ribbon** per acre per year, 3 lbs. pyraclostrobin).
- Refer to **Table 1** for sequential application intervals for **Ribbon**.
- **DO NOT** use on crops intended for food or feed use.
- **DO NOT** apply through any type of irrigation equipment to turfgrass.
- **DO NOT** apply by air in turf uses other than sod farms.
- **DO NOT** use this product to formulate or reformulate any other pesticide product.

**Table 1. Ribbon Application Rates and Intervals on Turfgrass**

Disease/ Pathogen	Use Rate (Oz. Product/ 1,000 Sq. Ft.)	Use Rate (Oz. Product/A)	Application Interval (Days)	Directions
<b>Anthraxnose*</b> <i>Colletotrichum graminicola</i>	0.5 - 0.9	22 - 40	14 - 28	Apply preventively. Begin application when conditions are favorable for fungal infection, prior to disease symptom development.
<b>Bentgrass Dead Spot</b> <i>Ophiosphaerella agrostis</i>	0.5 - 0.9	22 - 40	14 - 28	Apply preventively. Begin application when conditions are favorable for fungal infection, prior to disease symptom development.
<b>Bermudagrass Decline</b> <i>Gaeumannomyces graminis</i> var. <i>graminis</i>	0.9	40	Not Applicable (see <b>Directions</b> )	Helps in control of Bermudagrass decline when integrated with appropriate cultural practices including raised mowing height, proper fertilization, and core aeration. Make 1 application in the Spring following green-up and a second application in the Fall when air temperatures remain above 80°F and humidity is 75% or higher. Apply in 4 gals. of water per 1,000 sq. ft.
<b>Brown Patch</b> <i>Rhizoctonia solani</i>	0.5 - 0.9	22 - 40	14 - 28	Use when conditions are favorable for disease development.

*(continued)*

**Table 1. Ribbon Application Rates and Intervals on Turfgrass (continued)**

Disease/ Pathogen	Use Rate (Oz. Product/ 1,000 Sq. Ft.)	Use Rate (Oz. Product/A)	Application Interval (Days)	Directions
<b>Brown Ring Patch</b> <i>Rhizoctonia circinata</i> var. <i>circinata</i> aka Waitea patch	0.9	40	14 - 28	Use when early yellow ring development is symptomatic. Late curative applications will not be effective. Brown ring patch symptoms may take 2 - 3 weeks to disappear following application. Use 2 - 4 gals. of spray volume per 1,000 sq. ft. and appropriate soil wetting agent at time of application. Reapplication after 28 days may be required. Provide short irrigation cycle directly following treatment to move fungicide through thatch.
<b>Dollar Spot*</b> <i>Sclerotinia homoeocarpa</i> <b>Suppression Only</b>	0.9	40	14	<b>Ribbon</b> provides significant suppression but not complete control of dollar spot. When applied to control other diseases and dollar spot pressure is moderate to severe, tank mix <b>Ribbon</b> with another effective dollar spot fungicide including Curalan® EG fungicide, Emerald® fungicide, Iprodione Pro 2SE fungicide, or Trinity™ fungicide. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.

(continued)

**Table 1. Ribbon Application Rates and Intervals on Turfgrass (continued)**

Disease/ Pathogen	Use Rate (Oz. Product/ 1,000 Sq. Ft.)	Use Rate (Oz. Product/A)	Application Interval (Days)	Directions
<b>Fairy Ring</b> various <i>Basidiomycete</i> <i>fungi</i>	0.9	40	28	Use as soon as possible after fairy ring symptom development. Fairy ring symptoms may take 2 - 3 weeks to disappear following application. Use 2 - 4 gals. of spray volume per 1,000 sq. ft. and appropriate soil wetting agent at time of application. Reapplication after 28 days may be required. Provide short irrigation cycle directly following treatment to move fungicide through thatch.
<b>Fusarium Patch</b> <i>Microdochium</i> <i>nivale</i>	0.5 - 0.9	22 - 40	14 - 28	In the absence of snow cover, apply preventively. Start applications when conditions are favorable for fungal infection, prior to disease symptom development.
<b>Gray Leaf Spot*</b> <i>Pyricularia grisea</i>	0.5 - 0.9	22 - 40	14 - 28	Apply preventively. Start applications when conditions are favorable for fungal infection, prior to disease symptom development.
<b>Gray Snow Mold</b> <i>Typhula incarnata</i>	0.9	40	14 - 28	Make 2 applications 14 - 28 days apart in late Fall just prior to snow cover. For optimum control before extended periods of snow cover, make 1 or 2 applications of <b>Ribbon</b> at 0.7 - 0.9 oz. per 1,000 sq. ft. tank mixed with another effective (nonstrobilurin) fungicide including Curalan® EG fungicide, Iprodione Pro 2SE fungicide, or Trinity™ fungicide.

(continued)

**Table 1. Ribbon Application Rates and Intervals on Turfgrass (continued)**

Disease/ Pathogen	Use Rate (Oz. Product/ 1,000 Sq. Ft.)	Use Rate (Oz. Product/A)	Application Interval (Days)	Directions
<b>Large Patch (Brown Patch of Warm Season Turfgrasses)</b> <i>Rhizoctonia solani</i>	0.5 - 0.9	22 - 40	14 - 28	Use prior to or directly at initial signs of infection in Fall. Make 1 sequential application prior to turf dormancy with Honor™ fungicide or other effective fungicide including Trinity. Reapplication in Spring at time of green-up can be made if necessary. For control of brown patch of St. Augustinegrass, centipedegrass, kikuyugrass, seashore paspalum, and zoysiagrass (aka zoysia patch).
<b>Leaf Spot</b> <i>Bipolaris</i> spp., <i>Drechslera</i> spp., and <i>Exserohilum</i> spp.	0.5 - 0.9	22 - 40	14 - 28	Use when conditions are favorable for disease development. Rotate with other effective fungicides including Curalan EG or Iprodione Pro.
<b>Melting Out</b> <i>Drechslera poae</i>	0.5 - 0.9	22 - 40	14 - 28	Use when conditions are favorable for disease development. Rotate with other effective fungicides including Curalan EG or Iprodione Pro.
<b>Necrotic Ringspot</b> <i>Leptosphaeria korrae</i>	0.9	40	14 - 28	Helps in control of necrotic ring spot when combined with a nonstrobilurin fungicide including Trinity, thiophanate-methyl, or chlorothalonil. Make applications in Spring, Fall, or Winter when conditions are present for outbreaks.
<b>Pink Patch</b> <i>Limonomyces roseipellis</i>	0.5 - 0.9	22 - 40	14 - 28	Use when conditions are favorable for disease development.

(continued)

**Table 1. Ribbon Application Rates and Intervals on Turfgrass (continued)**

Disease/ Pathogen	Use Rate (Oz. Product/ 1,000 Sq. Ft.)	Use Rate (Oz. Product/A)	Application Interval (Days)	Directions
<b>Pink Snow Mold</b> <i>Microdochium nivale</i>	0.9	40	14 - 28	Make 2 applications, 14 - 28 days apart in late Fall just prior to snow cover. For optimum control before extended periods of snow cover, make 1 or 2 applications of <b>Ribbon</b> at 0.7 - 0.9 oz. per 1,000 sq. ft. tank mixed with another effective (nonstrobilurin) fungicide including Curalan EG, Iprodione Pro, or Trinity.
<b>Powdery Mildew</b> <i>Blumeria graminis</i>	0.5 - 0.9	22 - 40	14 - 28	Apply preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.
<b>Pythium Blight*</b> <i>Pythium aphanidermatum,</i> <i>Pythium</i> spp.	0.9	40	10 - 14	Apply preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development. Tank mix <b>Ribbon</b> with another (nonstrobilurin) fungicide labeled for Pythium blight control during severe disease pressure or when symptoms are already present.
<b>Pythium Root Dysfunction*</b> <i>Pythium volutum,</i> <i>Pythium</i> spp.	0.9	40	14 - 28	Use preventively or early curative for control. Following sequential application, rotate to other effective fungicides for this disease prior to additional <b>Ribbon</b> application. Irrigate immediately following application.

(continued)

**Table 1. Ribbon Application Rates and Intervals on Turfgrass (continued)**

Disease/ Pathogen	Use Rate (Oz. Product/ 1,000 Sq. Ft.)	Use Rate (Oz. Product/A)	Application Interval (Days)	Directions
<b>Rapid Blight</b> <i>Labyrinthula terrestris</i>	0.5 - 0.9	22 - 40	14 - 28	Apply preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development. Follow the shorter spray interval when using the lower application rate.
<b>Red Thread</b> <i>Laetisaria fuciformis</i>	0.5 - 0.9	22 - 40	14 - 28	Use when conditions are favorable for disease development.
<b>Rhizoctonia Leaf or Sheath Spot</b> <i>R. oryzae, R. zea</i>	0.5 - 0.9	22 - 40	14 - 28	Rhizoctonia infection can occur under warm, humid conditions on both cool-season turfgrass and warm-season turfgrass. This disease has been associated with localized dry spots, and necrotic (brown) ring symptoms can form. Apply when conditions are favorable for disease development. Use of soil-wetting agent may be appropriate.
<b>Rust</b> <i>Puccinia</i> spp. <i>Uromyces</i> spp.	0.5 - 0.9	22 - 40	14 - 28	Use when conditions are favorable for disease development.
<b>Summer Patch</b> <i>Magnaporthe poae</i>	0.5 - 0.9	22 - 40	14 - 28	Initiate applications in the Spring when soil temperatures reach 60°F - 65°F at a 2-inch soil depth, or as dictated by local recommendations.

*(continued)*

**Table 1. Ribbon Application Rates and Intervals on Turfgrass (continued)**

Disease/ Pathogen	Use Rate (Oz. Product/ 1,000 Sq. Ft.)	Use Rate (Oz. Product/A)	Application Interval (Days)	Directions
<b>Take-All Patch</b> <i>Gaeumannomyces graminis</i> var. <i>avenae</i>	0.9	40	28	Apply preventively. Start applications when conditions are favorable for fungal infection, prior to disease symptom development. Make 2 applications 28 days apart in the Fall, and 2 applications 28 days apart in the Spring.
<b>Yellow Tuft (Downy Mildew)</b> <i>Sclerophthora</i>	0.5 - 0.9	22 - 40	14 - 28	Apply preventively. Start applications when conditions are favorable for fungal infection, prior to disease symptom development.
* <b>DO NOT</b> apply more than 2 sequential applications of <b>Ribbon</b> for anthracnose, dollar spot, gray leaf spot, or Pythium. For all other diseases, when anthracnose, dollar spot or Pythium are not present, <b>DO NOT</b> apply more than 3 sequential applications of <b>Ribbon</b> . Then alternate to an effective nonstrobilurin fungicide before reapplying <b>Ribbon</b> .				

**Table 2. Ribbon Dilution Spray Solutions on Turfgrass**

Ribbon (Oz. Product/100 gallons spray solution)			
Use Rate (Oz. Product/ 1,000 Sq. Ft.)	Spray Volume (2 gallons/ 1,000 Sq. Ft.)	Spray Volume (3 gallons/ 1,000 Sq. Ft.)	Spray Volume (4 gallons/ 1,000 Sq. Ft.)
0.5	25	16.7	12.5
0.7	35	23.3	17.5
0.9	45	30.0	22.5

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## PRODUCTION ORNAMENTALS AND LANDSCAPE MAINTENANCE - USE DIRECTIONS

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Spray **Ribbon** for control of certain pathogens causing foliar, aerial, and crown rot diseases, including scab, blights, leaf spots, powdery and downy mildews, anthracnose, and rust of ornamental plants and flower bulbs. Start applications of **Ribbon** prior to disease development and continue throughout the season at specified intervals following resistance management guidelines. **Ribbon** works best when used as part of a preventive disease management program. Use of **Ribbon** as a late curative or eradicator treatment may not always result in satisfactory disease control.

Integrate **Ribbon** into an overall disease and pest management program that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, pruning, plant residue management, proper timing and placement of irrigation, and manipulation of environmental conditions to prevent fungal development where possible.

### Plant Tolerance

The phytotoxic potential of **Ribbon** has been assessed on a wide variety of common ornamental plants with no phytotoxicity observed. Refer to **Table 6** for the list of plants shown to be tolerant to **Ribbon**. Not all plant species and their varieties and cultivars have been tested for tolerance to **Ribbon**, possible tank mix combinations of **Ribbon**, pesticide treatments preceding or following those of **Ribbon**, and combinations of **Ribbon** with adjuvants or surfactants. Local conditions can also influence plant tolerance and may not match those under which Sharda USA LLC has conducted testing. Therefore, before using **Ribbon**, test the product on a sample of the plant to be treated to ensure that a phytotoxic response will not occur prior to large-scale use.

### Use with Additives

Label directions are based on data without additives. Additives or spray adjuvants are usually not necessary for use with **Ribbon**. If additives or spray adjuvants are included, use only surfactants approved for ornamental plants in combination with **Ribbon**. Test the product on a sample of the plant to be treated to ensure that injury will not occur prior to large-scale use. **DO NOT** use organosilicone-based adjuvants with **Ribbon** or injury may result on certain ornamental species. Always test tank mixes on a small group of representative plants prior to broadscale use.

### Restrictions:

- For outdoor uses, **DO NOT** use more than a total of 15 pounds (3 lbs. a.i.) of **Ribbon** per acre per year.
- For greenhouse uses, **DO NOT** make more than 8 applications of **Ribbon** per year.
- **DO NOT** use on plants that show injury (leaf phytotoxicity or plant stunting) produced by prior pesticide applications.
- **DO NOT** apply on crops intended for food or feed use.

- **DO NOT** spray by air in ornamental uses other than production ornamentals. Use sites permitted include: Container and field nurseries, Flower bulb production, and Forest and conifer nurseries.
- **DO NOT** apply in vegetables grown in greenhouses for crop production, or in vegetable production of transplants for outdoor use.
- **DO NOT** expose wintercreeper (*Euonymus vegetus*) and nine bark (*Physocarpus opulifolius*) to spray or drift containing **Ribbon** or injury may result.
- **DO NOT** expose Concord, Worden, Fredonia or Niagara grapes, or related varieties, to spray or drift containing **Ribbon** or injury may result.
- Be cautious when applying **Ribbon** to impatiens (*Impatiens* spp.) and petunia (*Petunia* spp.) during flowering as discoloration may occur.
- **Resistance Management** - To limit the potential for development of resistance, **DO NOT** make more than 2 sequential applications of **Ribbon**. Then alternate to a labeled fungicide with a different mode of action.

### Application Information

Use **Ribbon** according to the rate, timing, resistance management and adjuvant use recommendations in **Tables 3** and **4** in this label. **Ribbon** may be applied by ground sprayer, aerial equipment, or through sprinkler and drip irrigation systems.

### Foliar-directed and Crown-Directed

Use **Ribbon** at use rates and intervals stated in **Tables 3** and **4**. Under light-to-moderate disease pressure, use the lower rates on a 7-day interval or the higher rates on a 14-day interval. Under environmental conditions that promote severe disease development, use the higher rates on a 7-day interval. Use **Ribbon** as a broadcast or banded spray targeted at the foliage or crown of the plant. Apply to runoff in sufficient water to ensure complete coverage of the target plant. Thorough coverage and wetting of foliage, crown and base of the plant and growth media surrounding the crown is necessary for best control. Refer to **Table 3** for specific use directions for control of specific diseases. Repeat applications at specified intervals (plus alternations for resistance management) for as long as required.

### Drench

Spray **Ribbon** preventively as a drench treatment for control of certain soilborne, seedling and crown diseases in production ornamentals. For control of *Rhizoctonia solani* and *Phytophthora* spp., drench the soil with a solution of 8 - 16 oz. of **Ribbon** per 100 gals. Thorough coverage and wetting of root zone, crown and base of the plant, and surrounding growth media is necessary for best control. Repeat applications as needed within 7 - 21 days. See **Table 4** for more information regarding drench treatments. Sharda USA LLC does not recommend using **Ribbon** after symptoms of soilborne disease have become evident because control may not be satisfactory.

**Table 3. Ribbon Application Rates and Intervals on Ornamentals and in Landscape Maintenance for Foliar and Crown Diseases**

Disease/Pathogen	Use Rate/ Application (Oz. Product/ 100 Gals.)	Application Interval (Days)*	Directions
<b>Anthracnose</b> <i>Colletotrichum</i> spp. <i>Gloeosporium</i> spp.	8 - 16 (1.6 - 3.2 oz. a.i.)	7 - 14	Apply preventively. Start application when conditions are favorable for fungal infection, prior to disease symptom development.
<b>Blossom Blight</b> Monilinia blossom blight <i>Monilinia</i> spp.	8 - 16 (1.6 - 3.2 oz. a.i.)	7 - 14	Apply preventively. Start application when conditions are favorable for fungal infection, prior to disease symptom development.
<b>Crown and Basal Rot</b> <i>Rhizoctonia solani</i> <i>Pythium</i> spp. <i>Phytophthora</i> spp. <i>Fusarium</i> spp.	8 - 16 (1.6 - 3.2 oz. a.i.)	7 - 14	Apply preventively. Start application when conditions are favorable for fungal infection, prior to disease symptom development. The crown and base of the plant and the soil or potting medium surrounding the crown must be thoroughly covered. Apply 8 - 12 oz. on herbaceous plants, including bedding plants. Apply 8 - 16 oz. on woody ornamentals.
<b>Downy Mildew</b> <i>Peronospora</i> spp.	4 - 8 (0.8 - 1.6 oz. a.i.)	7 - 14	Apply preventively. Start application when conditions are favorable for fungal infection, prior to disease symptom development.

(continued)

**Table 3. Ribbon Application Rates and Intervals on Ornamentals and in Landscape Maintenance for Foliar and Crown Diseases (continued)**

Disease/Pathogen	Use Rate/ Application (Oz. Product/ 100 Gals.)	Application Interval (Days)*	Directions
<b>Leaf Spot</b> <i>Alternaria</i> spp. <i>Cercospora</i> spp. <i>Mycosphaerella</i> spp. <i>Myrothecium</i> spp. <i>Phyllosticta</i> spp.	2 - 8 (0.4 - 1.6 oz.)	7 - 14	Apply preventively. Start application when conditions are favorable for fungal infection, prior to or at the first disease symptom development. For control of <i>D. rosae</i> , tank mix with a triazole or mancozeb-containing fungicide.
<i>Didymellina</i> spp. <i>Ramularia</i> spp. <i>Septoria</i> spp.	4 - 8 (0.8 - 1.6 oz. a.i.)		
<i>Diplocarpon rosae</i> <i>Entomosporium</i> sp.	8 - 16 (1.6 - 3.2 oz. a.i.)		
<b>Phytophthora and Pythium Aerial Blight</b> <i>Phytophthora</i> spp. <i>Pythium</i> spp.	8 - 16 (1.6 - 3.2 oz. a.i.)	7 - 14	Apply preventively. Start application when conditions are favorable for fungal infection, prior to disease symptom development. Apply 8 - 12 oz. on herbaceous plants, including bedding plants. Apply 8 - 16 oz. on woody ornamentals. For management of sod, make a preventive spray as a foliar spray providing good coverage of foliage and stems. A wetting agent, including a spreader-sticker, is recommended on plants with hard-to-wet leaf surfaces and coverage of stems. <b>DO NOT</b> apply this product in a curative manner or post-infection situation. Following 2 applications of <b>Ribbon</b> , rotate to Stature® SC fungicide or Subdue Maxx® fungicide.
<b>Sudden Oak Death (Sod)</b> <i>Phytophthora ramorum</i>	16 (3.2 oz. a.i.)		

(continued)

**Table 3. Ribbon Application Rates and Intervals on Ornamentals and in Landscape Maintenance for Foliar and Crown Diseases (continued)**

Disease/Pathogen	Use Rate/ Application (Oz. Product/ 100 Gals.)	Application Interval (Days)*	Directions
<b>Powdery Mildew</b> <i>Erysiphe</i> sp. <i>Microsphaera</i> sp. <i>Oidium</i> sp. <i>Phyllactinia</i> sp. <i>Podosphaera</i> sp. <i>Sphaerotheca</i> sp. <i>Uncinula</i> sp.	4 - 8 (0.8 - 1.6 oz. a.i.)	7 - 14	Apply preventively. Start application when conditions are favorable for fungal infection, prior to or at the first disease symptom development.
<b>Rhizoctonia Blight</b> <i>Rhizoctonia solani</i>	8 - 16 (1.6 - 3.2 oz. a.i.)	7 - 14	Apply preventively. Start application when conditions are favorable for fungal infection, prior to disease symptom development. Apply 8 - 12 oz. on herbaceous plants, including bedding plants. Apply 8 - 16 oz. on woody ornamentals.
<b>Rot</b> <b>Botrytis Rot</b> <i>Botrytis cinerea</i> <i>B. tulipae</i> <b>Sclerotinia Rot</b> <i>Sclerotinia</i> spp.	8 - 16 (1.6 - 3.2 oz. a.i.)	7 - 14	Apply preventively. Start application when conditions are favorable for fungal infection, prior to disease symptom development.
<b>Rust</b> <i>Puccinia</i> spp.	4 - 8 (0.8 - 1.6 oz. a.i.)	7 - 14	Apply preventively. Start application when conditions are favorable for fungal infection, prior to disease symptom development. Apply higher rates on <i>Gymnosporangium</i> spp. and <i>Melampsora</i> spp.
<i>Gymnosporangium</i> spp. <i>Melampsora</i> spp.	8 - 16 (1.6 - 3.2 oz. a.i.)		

(continued)

**Table 3. Ribbon Application Rates and Intervals on Ornamentals and in Landscape Maintenance for Foliar and Crown Diseases (continued)**

Disease/Pathogen	Use Rate/ Application (Oz. Product/ 100 Gals.)	Application Interval (Days)*	Directions
<b>Scab</b> <i>Venturia</i> spp. <i>Cladosporium</i> spp.	4 - 8 (0.8 - 1.6 oz. a.i.)	7 - 14	Apply preventively. Start application when conditions are favorable for fungal infection, prior to disease symptom development.
*The stated interval applies to conditions under which moderate-to-high disease pressure is expected. If conditions are unfavorable for infection, or if disease pressure is absent, the interval may be extended up to 28 days.			

**Table 4. Ribbon Drench Treatment Rates to Control Specified Soilborne Disease**

Disease/Pathogen	Use Rate/ Application (Oz. Product/ 100 Gals.)	Comments
<b>Soilborne Disease</b> <i>Fusarium</i> spp. <i>Phytophthora</i> spp. <i>Pythium</i> spp. <i>Rhizoctonia solani</i>	8 - 16 (1.6 - 3.2 oz. a.i.)	Apply as a preventive treatment. Drench the soil with a solution of 8 - 16 oz. of <b>Ribbon</b> per 100 gals. Thorough coverage and wetting of root zone, crown and base of the plant, and surrounding growth media is necessary for best control. <b>Suggested Drench Volume:</b> 200 - 250 mL per 6-inch pot. Repeat applications as needed within 7 - 21 days.

**Table 5. Ribbon Dilution Spray Solutions on Ornamentals and in Landscape Maintenance**

Ribbon (Oz. Product/100 Gals. of spray solution)			
Use Rate (Oz. Product/ 100 Gals.)	Spray Volume (Grams product/ 2 Gals.)	Spray Volume (Grams product/ 3 Gals.)	Spray Volume (Grams product/ 4 Gals.)
2 (0.4 oz. a.i.)	1.13	1.70	2.26
4 (0.8 oz. a.i.)	2.26	3.4	4.52
8 (1.6 oz. a.i.)	4.52	6.8	9.04
12 (2.4 oz. a.i.)	6.80	10.2	13.61
16 (3.2 oz. a.i.)	9.04	13.6	18.14

**Table 6. Ribbon Tolerant Plant Species**

Plants in this table have been found to be tolerant to **Ribbon** when it is applied according to the use instructions stated in this label.

The phytotoxic potential of **Ribbon** has been assessed on a wide variety of common ornamental plants with no phytotoxicity observed. Not all plant species and their varieties and cultivars have been tested for tolerance to **Ribbon**, possible tank mix combinations of **Ribbon**, pesticide treatments preceding or following those of **Ribbon**, and combinations of **Ribbon** with adjuvants or surfactants. Local conditions can also influence plant tolerance and may not match those under which Sharda USA LLC has conducted testing. Therefore, before using **Ribbon**, test the product on a sample of the plant to be treated to ensure that a phytotoxic response will not occur prior to large-scale use.

Additives or spray adjuvants are usually not necessary for use with **Ribbon**. If they are needed, use only surfactants approved for ornamental plants in combination with **Ribbon**. Test the product combination on a sample of the plant to be treated to ensure that a phytotoxic response will not occur prior to large-scale use. **DO NOT** use organosilicone-based adjuvants with **Ribbon** or plant phytotoxicity may result on certain ornamental species.

Host Common Name	Scientific Name
African Violet	<i>Saintpaulia ionantha</i>
Ajuga	<i>Ajuga reptans</i>
Almond (Non-Bearing)	<i>Prunus dulcis</i>
Aloe Vera	<i>Aloe vera</i>

(continued)

**Table 6. Ribbon Tolerant Plant Species (continued)**

Host Common Name	Scientific Name
Apple (Non-Bearing)	<i>Malus</i> sp.
Apricot (Non-Bearing)	<i>Prunus armeniaca</i>
Arborvitae	<i>Thuja</i> sp.
Ardisia	<i>Ardisia</i> sp.
Arrowwood	<i>Viburnum dentatum</i>
Ash, Red	<i>Fraxinus pennsylvanica</i>
Asian Trache	<i>Trachelospermum</i> sp.
Asparagus Fern	<i>Asparagus densiflorus</i>
Astilbe	<i>Astilbe</i> sp.
Aucuba	<i>Aucuba japonica</i>
Avens	<i>Geum chiloense</i>
Azalea	<i>Rhododendron</i> sp.
Baby's Breath	<i>Gypsophila repens</i>
Bachelor Button	<i>Centaurea montana</i>
Balloon Flower	<i>Platycodon grandiflorus</i>
Basket-Of-Gold	<i>Aurinia saxatilis</i>
Barbados Lily	<i>Hippeastrum vittatum</i>
Barberry, Japanese	<i>Berberis thunbergii</i>
Bayberry (Wax Myrtle)	<i>Myrica cerifera</i>
Bee Balm	<i>Monarda didyma</i>
Begonia	<i>Begonia x semperflorens cultorum</i>
Bellflower	<i>Companula glomerata</i>
Blackberry	<i>Vaccinium myrtillus</i>
Black-Eyed Susan	<i>Rudbeckia</i> sp.
Blanket Flower	<i>Gaillardia grandiflora</i>
Blue Lily Turf	<i>Liriope</i> sp.
Boxwood (Japanese, Common)	<i>Buxus - B. japonica, B. sempervirens</i>

(continued)

**Table 6. Ribbon Tolerant Plant Species (continued)**

Host Common Name	Scientific Name
Brachycome, Blue	<i>Brachycome</i> sp.
Bridal Wreath	<i>Spiraea vanhouttei</i>
Butterfly Bush	<i>Buddleia</i> sp.
Caladium	<i>Caladium</i> sp.
Canna	<i>Canna x generalis</i>
Camellia, Japanese	<i>Camellia japonica</i>
Carnation	<i>Dianthus caryophyllus</i>
Cedar, Japanese	<i>Cryptomeria japonica</i>
Chamaecyparis	<i>Chamaecyparis pisifer</i>
Chestnut, American	<i>Castanea dentata</i>
China (Rose)	<i>Hibiscus</i> sp.
Chinquapin	<i>Castanea pumila</i>
Cherry (Non-Bearing)	<i>Prunus avium</i> , <i>P. cerasus</i>
Cherry, Flowering (Kwanzan)	<i>Prunus serrulata</i> 'Kwanzan'
Cherry, Flowering (Mt. Fuji Shirotae)	<i>Prunus serrulata</i> 'Mt. Fuji' (Shirotae)
Chrysanthemum	<i>Chrysanthemum</i> sp.
Citrus (Non-Bearing)	<i>Citrus</i> spp.
Columbine	<i>Aquilegia</i> sp.
Cone Flower	<i>Rudbeckia hirta</i>
Coral Bells	<i>Heuchera</i> sp.
Cortaderia	<i>Cortaderia</i> sp.
Cotoneaster, Cranberry	<i>Cotoneaster apiculatus</i>
Crabapple	<i>Malus</i> sp.
Cranberry, American	<i>Vaccinium macrocarpon</i>
Crape Myrtle	<i>Lagerstroemia indica</i>
Cryptomeria	<i>Cryptomeria</i> sp.
Cupid's Dart	<i>Catananche cerulea</i>

(continued)

**Table 6. Ribbon Tolerant Plant Species (continued)**

Host Common Name	Scientific Name
Cyclamen	<i>Cyclamen</i> sp.
Daffodil	<i>Narcissus pseudonarcissus</i>
Dahlia	<i>Dahlia</i> sp.
Daylily	<i>Hemerocallis</i> sp.
Deutzia	<i>Deutzia</i> sp.
Dietes	<i>Dietes vegeta</i>
Dogwood	<i>Cornus</i> sp.
Douglas Fir	<i>Pseudotsuga</i> sp.
Dusty Miller	<i>Centaurea cineraria</i>
Echinacea	<i>Echinacea purpurea</i>
Elaeagnus (Russian Olive)	<i>Elaeagnus angustifolia</i>
Elder, Water	<i>Sambucus</i> sp.
Euonymus	<i>Euonymus alata</i>
Fern, Kimberly Queen	<i>Nephrolepis obliterated</i>
Fern, Wood	<i>Dryopteris</i> sp.
Forsythia	<i>Forsythia</i> sp.
Foxglove	<i>Digitalis</i> sp.
Gardenia	<i>Gardenia jasminoides</i>
Gayfeather	<i>Liatris</i> sp.
Gazania	<i>Gazania</i> sp.
Geranium	<i>Pelargonium</i> sp.
Gerbera	<i>Gerbera</i> sp.
Gladiolus	<i>Gladiolus</i> sp.
Globe Thistle	<i>Echinops ritro</i>
Goldbell Tree, Chinese	<i>Forsythia viridissima</i>
Grape, European (Non-Bearing)	<i>Vitis vinifera</i>
Hawthorn (Indian)	<i>Rhaphiolepis</i> sp.

(continued)

**Table 6. Ribbon Tolerant Plant Species (continued)**

Host Common Name	Scientific Name
Hazel	<i>Corylopsis</i> sp.
Heavenly Bamboo	<i>Nandina domestica</i>
Hemlock, Canada	<i>Tsuga Canadensis</i>
Holly (Chinese, Japanese, Yaupon)	<i>Ilex</i> ( <i>I. cornuta</i> , <i>I. crenata</i> , <i>I. vomitoria</i> )
Hosta	<i>Hosta</i> sp.
Hydrangea	<i>Hydrangea</i> sp.
Impatiens (New Guinea, Balsam Non-Flowering)	<i>Impatiens</i> spp. (Non-Flowering)
Iris	<i>Iris</i> sp.
Ivy (Common, California, English)	<i>Hedera</i> sp.
Jasmine, Star	<i>Trachelospermum jasminoides</i>
Jessamine	<i>Gelsemium sempervirens</i>
Juniper (Creeping, Chinese)	<i>Juniperus</i> - <i>J. horizontalis</i> , <i>J. chinensis</i>
Lamb's Ear	<i>Stachys byzantina</i>
Lantana	<i>Lantana montevidensis</i>
Larkspur	<i>Delphinium elatum</i>
Leopard's Bane	<i>Doronicum cordatum</i>
Leucophyllum	<i>Leucophyllum</i> sp.
Lilac, Common	<i>Syringa</i> sp.
Lily	<i>Lilium</i> sp.
Liriope (Variegated)	<i>Liriope muscari variegata</i>
Lisianthus	<i>Eustoma grandiflora</i>
Lobelia	<i>Lobelia</i> sp.
Loropetalum	<i>Loropetalum chinense</i>
Lupine	<i>Lupinus</i> spp.
Magnolia (Star, Saucer)	<i>Magnolia</i> ( <i>M. stellata</i> , <i>M. soulangiana</i> )
Maidenhair Tree	<i>Ginkgo biloba</i>
Mandevilla	<i>Mandevilla</i> sp.

(continued)

**Table 6. Ribbon Tolerant Plant Species (continued)**

Host Common Name	Scientific Name
Maple (Amur, Japanese, Norway, Sugar, Soft, Negundo)	<i>Acer</i> ( <i>A. ginnala</i> , <i>A. palmatum</i> , <i>A. platanoides</i> , <i>A. saccharum</i> , <i>A. saccharinum</i> , <i>A. negundo</i> )
Marigold	<i>Tagetes</i> sp.
Maudlin, Blue	<i>Ageratum houstonianum</i>
Meadow Sage	<i>Salvia x superba</i>
Monkey Grass	<i>Ophiopogon japonicus</i>
Morningglory	<i>Ipomoea</i> sp.
Moss, Rose	<i>Portulaca grandiflora</i>
Mountain Laurel	<i>Kalmia latifolia</i>
Myrica Cerifera	<i>Myrica cerifera</i>
Myrtle	<i>Myrtus</i> sp.
Narcissus	<i>Narcissus pseudonarcissus</i>
Nectarine (Non-Bearing)	<i>Prunus persica</i>
Oak (Bur, Red)	<i>Quercus</i> sp. ( <i>Q. macrocarpa</i> , <i>Q. Rubra</i> )
Oleander	<i>Nerium oleander</i>
Olive, Fragrant Tea	<i>Osmanthus fragrans</i>
Pansy	<i>Viola</i> sp.
Peach (Non-Bearing)	<i>Prunus persica</i>
Pear (Non-Bearing)	<i>Pyrus</i> sp.
Pecan (Non-Bearing)	<i>Carya illinoensis</i>
Periwinkle, Madagascar	<i>Catharanthus roseus</i>
Periwinkle, Perennial	<i>Vinca major</i> , <i>V. minor</i>
Petunia (Non-Flowering)	<i>Petunia</i> spp. (Non-Flowering)
Phlox	<i>Phlox</i> sp.
Pine (Black, White, Blue, Mugo)	<i>Pinus</i> ( <i>P. thunbergiana</i> , <i>P. strobus</i> , <i>P. pinea</i> , <i>P. mugo</i> )
Pine, European	<i>Abies alba</i>
Pistachio (Non-Bearing)	<i>Pistacia vera</i>

**Table 6. Ribbon Tolerant Plant Species (continued)**

Host Common Name	Scientific Name
Pittosporum (Japanese)	<i>Pittosporum tobira</i>
Plum (Non-Bearing)	<i>Prunus domestica</i>
Plum, Purple Leaf	<i>Prunus cerasifera</i>
Poinsettia	<i>Euphorbia pulcherrima</i>
Poplar	<i>Populus trichocarpa, P. deltoides</i>
Primrose	<i>Oenothera speciosa</i>
Privet	<i>Ligustrum sp.</i>
Purple Ornamental Grass	<i>Pennisetum alopecuroides</i>
Purslane	<i>Portulaca sp.</i>
Quince	<i>Chaenomeles sp.</i>
Ranunculus	<i>Ranunculus sp.</i>
Raphiolepis	<i>Raphiolepis sp.</i>
Redbud	<i>Cercia sp.</i>
Redtip Photinia	<i>Photinia fraseri</i>
Redvein Enkianthus	<i>Enkianthus campanulatus</i>
Rhododendron	<i>Rhododendron sp.</i>
Rock Cress	<i>Arabis caucasica</i>
Rose	<i>Rosa sp.</i>
Rose Mallow	<i>Hibiscus moscheutos</i>
Ruellia	<i>Ruellia sp.</i>
Russian Arborvitae	<i>Microbiota decussata</i>
Sage, Silverado	<i>Leucophyllum sp.</i>
Sago	<i>Cycas revoluta</i>
Salvia	<i>Salvia coccinea</i>
Scabious, Sweet	<i>Scabiosa atropurpurea</i>
Sedum	<i>Sedum sp.</i>
Snapdragon	<i>Antirrhinum sp.</i>

(continued)

**Table 6. Ribbon Tolerant Plant Species (continued)**

Host Common Name	Scientific Name
Speedwell	<i>Veronica spicata</i>
Spindle Tree (Burning Bush)	<i>Euonymus</i> sp.
Spirea	<i>Spiraea</i> sp.
Spruce	<i>Picea</i> sp.
Spurge, Japanese	<i>Pachysandra terminalis</i>
St. John's Wort	<i>Hypericum calycinum</i>
Stonecrop	<i>Sedum</i> sp.
Sweetspire	<i>Itea</i> sp.
Sweet William	<i>Dianthus barbatus</i>
Thrift	<i>Armeria maritima</i>
Tick Seed	<i>Coreopsis</i> sp.
Tulip	<i>Tulipa</i> sp.
Verbena	<i>Verbena</i> sp.
Viburnum (Water Elder)	<i>Viburnum</i> sp.
Vinca, Annual	<i>Catharanthus roseus</i>
Viola	<i>Viola</i> sp.
Wall Germander	<i>Teucrium canadense</i>
Walnut Tree (Black, Common)	<i>Juglans</i> ( <i>J. nigra</i> , <i>J. regia</i> )
Wormwood	<i>Artemisia</i> sp.
Yarrow	<i>Achillea</i> sp.
Zinnia	<i>Zinnia</i> sp.

**Table 7. Plant Species NOT Tolerant to Ribbon\*:  
DO NOT expose these species or varieties to Ribbon.**

Grape - Concord, Worden, Fredonia, Niagara, or related varieties	<i>Vitis</i> sp.
Nine bark	<i>Physocarpus opulifolius</i>
Wintercreeper	<i>Euonymus vegetus</i>
* See <b>Restrictions</b> for precautions regarding use on impatiens and petunia during flowering.	

## STORAGE AND DISPOSAL

**DO NOT** contaminate water, food or feed by storage and disposal.

**PESTICIDE STORAGE:** Store product in original container only. **DO NOT** contaminate water, other pesticides, fertilizer, food, or feed in storage. Store in a cool, dry place.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

### **CONTAINER HANDLING:**

**Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds):** Nonrefillable 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 1/4 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, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. **DO NOT** burn, unless allowed by State and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

**Nonrefillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds):** Nonrefillable 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 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. **DO NOT** burn, unless allowed by State and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

*(continued)*

## STORAGE AND DISPOSAL *(continued)*

### CONTAINER HANDLING: *(continued)*

#### **Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers IBC (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down):**

Nonrefillable container. **DO NOT** reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom, and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

**Nonrefillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums with Liners:** Nonrefillable container. **DO NOT** reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer for recycling if available or dispose of empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill, or by incineration. **DO NOT** burn, unless allowed by State and local ordinances.

*(continued)*

## STORAGE AND DISPOSAL (continued)

### CONTAINER HANDLING: (continued)

**Refillable Fiber Drums with Liners: Refillable container (fiber drum only). Refilling Fiber Drum:** Refill this fiber drum with this pesticide only. **DO NOT** reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Disposing of Fiber Drum and/or Liner: **DO NOT** reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. **DO NOT** burn, unless allowed by State and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill, or by incineration. **DO NOT** burn, unless allowed by State and local ordinances.

**All Other Refillable Containers:** Refillable container. Refilling Container: Refill this container with this pesticide only. **DO NOT** reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage including cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, **DO NOT** use the container, contact CHEMTREC at the number below for instructions. Check for leaks after refilling and before transporting. If leaks are found, **DO NOT** reuse or transport container, contact CHEMTREC at the number below for instructions. Disposing of Container: **DO NOT** reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom, and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. **DO NOT** burn, unless allowed by State and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

## **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Sharda USA LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Sharda USA LLC and Seller harmless for any claims relating to such factors.

Sharda USA LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or Sharda USA LLC and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, SHARDA USA LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither Sharda USA LLC nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SHARDA USA LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SHARDA USA LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

Sharda USA LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Sharda USA LLC.

All trademarks are the property of their respective owners.

<b>PRIMEROS AUXILIOS</b>	
<b>SI SE INGIERE:</b>	<ul style="list-style-type: none"> <li>• Llame de inmediato a un centro de control de envenenamientos o a un médico para consejo de tratamiento.</li> <li>• Si la persona puede tragar, haga que beba un vaso de agua lentamente.</li> <li>• <b>NO</b> induzca el vómito a menos que así se lo indique un centro de control de envenenamientos o un médico.</li> <li>• <b>NO</b> administre nada por boca a una persona que haya perdido el conocimiento.</li> </ul>
<b>SI CAE EN LA PIEL O LA ROPA:</b>	<ul style="list-style-type: none"> <li>• Quítese la ropa contaminada.</li> <li>• Enjuague la piel inmediatamente con bastante agua por 15 - 20 minutos.</li> <li>• Llame al centro de control de envenenamientos o a un médico para consejo de tratamiento.</li> </ul>
<b>SI ENTRA EN CONTACTO CON LOS OJOS:</b>	<ul style="list-style-type: none"> <li>• Mantenga los ojos abiertos y enjuáguelos lenta y cuidadosamente con agua, durante 15 a 20 minutos.</li> <li>• Si utiliza lentes de contacto, retírelos después de los primeros 5 minutos, luego continúe enjuagando los ojos.</li> <li>• Llame al centro de control de envenenamientos o a un médico para consejo de tratamiento.</li> </ul>
<b>SI ES INHALADO:</b>	<ul style="list-style-type: none"> <li>• Traslade a la persona al aire fresco.</li> <li>• Si la persona no está respirando llame al 911 o a una ambulancia, luego dé respiración artificial, preferiblemente de boca a boca, si es posible.</li> <li>• Llame al centro de control de envenenamientos o a un médico para consejo de tratamiento.</li> </ul>
<b>NÚMERO DE TELÉFONO DIRECTO</b>	
<p>Cuando llame a un centro de control de envenenamiento, o a un médico, o intente obtener tratamiento, tenga a la mano el envase o la etiqueta del producto. Para información de emergencia sobre este producto, llame al centro de control de envenenamientos a <b>1-800-222-1222</b>.</p>	

## **DECLARACIONES PREVENTIVAS**

### **RIESGOS PARA LOS SERES HUMANOS Y ANIMALES DOMÉSTICOS**

#### **PRECAUCIÓN**

Dañino si se ingiere o es absorbido por la piel. Causa irritación moderada en los ojos. Evite el contacto con la piel, los ojos o la ropa. Lávese bien con agua y jabón después de manipular y antes de comer, beber, masticar chicle, usar tabaco o usar el baño. Quítese y lave la ropa contaminada antes de reutilizarla.

## **EQUIPO DE PROTECCIÓN PERSONAL (PPE, POR SUS SIGLAS EN INGLÉS)**

**Los aplicadores y otros manipuladores de pesticidas (plaguicidas) deberán usar:**

- Camisa de manga larga y pantalones largos
- Guantes impermeables de laminado de barrera, goma de butilo  $\geq 14$  mils, goma de nitrilo  $\geq 14$  mils, goma de neopreno  $\geq 14$  mils, goma natural  $\geq 14$  mils, polietileno, cloruro de polivinilo (PVC)  $\geq 14$  mils o Viton  $\geq 14$  mils
- Zapatos y calcetines

### **REQUISITOS DE SEGURIDAD DEL USUARIO**

Siga las instrucciones del fabricante para la limpieza y el mantenimiento del equipo de protección personal (PPE, por sus siglas en inglés). En caso de no existir dichas instrucciones de lavado, utilice detergente y agua caliente. Mantenga y lave el PPE por separado del resto de la ropa.

### **DECLARACIÓN DE CONTROL TÉCNICO**

Cuando los manipuladores de pesticidas usen sistemas cerrados, cabinas, o aeronaves, de manera que cumplan con los requisitos enumerados en la Norma de Protección al Trabajador (WPS, por sus siglas en inglés) [40 CFR170.240 (d) (4-6)], para pesticidas agrícolas, los requisitos de equipo de protección personal (PPE) para el manipulador de pesticidas pueden reducirse o modificarse como está especificado en la WPS.

### **RIESGOS AMBIENTALES**

Este pesticida es tóxico hacia peces e invertebrados acuáticos. La deriva y la escorrentía pueden ser peligrosas para los organismos acuáticos en aguas adyacentes a las áreas tratadas. **NO** aplique directamente a cuerpos de agua, en áreas donde haya aguas superficiales, o en áreas intermareales que se encuentren bajo el nivel de altura máxima promedio del agua. **NO** contamine cuerpos de agua cuando disponga de las aguas de lavado de equipo o líquido de enjuague (rinsate).

### **Advertencia Sobre Aguas Subterráneas**

Este químico tiene propiedades y características asociadas con químicos detectados en aguas subterráneas. Este producto químico puede lixiviar hacia las aguas subterráneas si se utiliza en zonas con suelos permeables, especialmente donde el nivel freático está poco profundo.

Este producto puede contaminar el agua debido a la deriva de la pulverización por la acción del viento. Este producto tiene el potencial de drenarse durante varios meses o más después de su aplicación. Los suelos mal drenados y los suelos con capas freáticas poco profundas son más propensos a producir escorrentías que contengan este producto. Una franja de protección o amortiguamiento vegetativo, nivelada y bien mantenida entre las áreas donde este producto es utilizado y cuerpos de agua superficiales tales como lagos (lagunas), ríos y manantiales, reducirá el potencial de contaminación del agua por escorrentía de lluvia. Escorrentías de este producto pueden ser reducidas al evitar aplicaciones cuando se pronostique lluvia dentro de 48 horas. La aplicación de prácticas adecuadas de control de la erosión reducirá la contribución de este producto químico a la contaminación de las aguas superficiales.

### Advertencia referente a las aguas superficiales

Este producto puede impactar la calidad de cuerpos de agua superficiales debido a escorrentías de aguas pluviales. Esto es especialmente notable en suelos con poco drenaje y suelos con una tabla de agua que está cercana a la superficie. Este producto está clasificado por poseer un alto potencial de alcanzar aguas superficiales mediante escorrentía tras varios meses o más después de su aplicación. Una franja de contención vegetal bien mantenida entre las áreas donde se aplica este producto y las fuentes de agua superficial, como estanques, arroyos y manantiales, reducirá la posible carga de boscalida y piraclostrobina proveniente del agua de escorrentía y los sedimentos. La escorrentía de este producto se reducirá si se evitan las aplicaciones cuando se prevean lluvias o riego en las próximas 48 horas. Las prácticas adecuadas de control de la erosión reducirán la contribución de este producto a la contaminación de las aguas superficiales.

### Medidas a tomar en caso de derrame o liberación del material:

- En caso de derrame en el piso o superficies pavimentadas, limpie con un trapeador y trasládalo al área de almacenamiento de residuos químicos hasta que se pueda desechar adecuadamente si el producto no se puede usar según las instrucciones de la etiqueta.
- Contenga el derrame con material inerte (arena, tierra, etc.) y transfiera el material de contención líquido y sólido a envases separados para su eliminación.
- Qútese la ropa contaminada y lave las zonas de piel afectadas con agua y jabón.
- Lave la ropa antes de volver a usarla.
- Mantenga el derrame fuera de alcantarillas y cuerpos de agua abiertos.

El uso de este producto de forma contraria a lo indicado en su etiqueta constituye una infracción de la ley federal.

## ALMACENAMIENTO Y DESECHO

**NO** contamine el agua, los alimentos ni los forrajes durante el almacenamiento o el desecho.

**ALMACENAMIENTO DE PESTICIDAS:** Almacenar el producto únicamente en el envase original. Mantenga el envase cerrado cuando no lo use. **NO** almacenar cerca de forraje o alimentos.

**DESECHO DE PESTICIDAS:** Los residuos resultantes del uso de este producto deben eliminarse en el lugar de origen o en una instalación de eliminación de residuos autorizada. Si estos residuos no pueden ser eliminados de acuerdo con las instrucciones de la etiqueta, contacte la agencia para el manejo de pesticidas o control ambiental de su estado, o el representante para el Manejo de Residuos Peligrosos de la Oficina Regional de la EPA más cercana para obtener indicaciones del proceso a seguir para su disposición.

*(continuado)*

## ALMACENAMIENTO Y DESECHO *(continuado)*

### MANIPULACIÓN DE ENVASES:

**Envases de plástico y metal no rellenables (Capacidad igual o menos de 50 libras):** Envase no rellenable. **NO** reutilice ni rellene este envase. Enjuague tres veces (o equivalente) el envase inmediatamente después de vaciarlo. Enjuague tres veces siguiendo estas indicaciones: vacíe los contenidos restantes en el equipo de aplicación o un tanque de mezcla. Llene el envase 1/4 lleno con agua y tape de nuevo. Agite por 10 segundos. Vierta el líquido de enjuague (rinsate) en el equipo de aplicación o tanque de mezcla, o almacene el enjuague para uso más tarde o eliminación. Drene por 10 segundos después de que el flujo empiece a gotear. Repita este procedimiento dos veces más. Luego, ofrezca el envase para su reciclaje o reacondicionamiento, o perfore el envase y deséchelo en un vertedero sanitario o mediante incineración. **NO** quemé el envase, a menos que lo permitan las ordenanzas estatales y locales. Para envases de metal, ofrezca para el reciclaje si está disponible o el reacondicionado si está adecuado, o perfore y deseche en un área adecuada para desechos sanitarios o por otros procedimientos aprobados por las autoridades estatales y locales.

**Envases de plástico y metal no rellenables (Capacidad más de 50 libras):** Envase no rellenable. **NO** reutilice ni rellene este envase. Enjuague tres veces (o equivalente) el envase inmediatamente después de vaciarlo. Enjuague tres veces siguiendo estas indicaciones: vacíe los contenidos restantes en el equipo de aplicación o un tanque de mezcla. Llene el envase 1/4 lleno con agua. Reemplace y asegure los cierres. Vuelque el envase al lado y hágalo rodar por 30 segundos, asegurando por lo menos una revolución completa. Ponga el envase vertical e inclínelo hacia adelante y hacia atrás varias veces. Dé vuelta al envase hacia el lado opuesto e inclínelo hacia adelante y hacia atrás varias veces. Vierta el líquido de enjuague (rinsate) en el equipo de aplicación o tanque de mezcla, o almacene el enjuague para uso más tarde o eliminación. Repita este procedimiento dos veces más. Luego, ofrezca el envase para su reciclaje o reacondicionamiento, o perfore el envase y deséchelo en un vertedero sanitario o mediante incineración. **NO** quemé el envase, a menos que lo permitan las ordenanzas estatales y locales. Para envases de metal, ofrezca para el reciclaje si está disponible o el reacondicionado si está adecuado, o perfore y deseche en un área adecuada para desechos sanitarios o por otros procedimientos aprobados por las autoridades estatales y locales.

*(continuado)*

## ALMACENAMIENTO Y DESECHO *(continuado)*

### MANIPULACIÓN DE ENVASES: *(continuado)*

**Envases de plástico y metal no rellenables, por ejemplo, envases intermedios para graneles IBC (tamaño o forma demasiado grande para volcarlos, rodarlos o ponerlos boca abajo):**

Envase no rellenable. **NO** reutilice ni rellene este envase. Limpie el envase inmediatamente una vez que vacíe su contenido dentro del equipo de aplicación o tanque de mezcla y antes de su desecho final, usando el siguiente procedimiento de enjuague a presión. Inserte una lanza con boquilla apropiada para la limpieza de tanques en el envase y asegúrese de que el agua asperjada cubra completamente la parte superior, parte inferior y los lados del interior del envase. El fabricante de las boquillas generalmente proporciona instrucciones acerca de la presión de aspersión adecuada, la duración de la aspersión y/o volumen de aspersión. Si las instrucciones del fabricante no están disponibles, enjuague el envase a presión por lo menos durante 60 segundos usando una presión mínima de 30 PSI (libras por pulgada cuadrada), con un volumen de enjuague mínimo del 10% del volumen del envase. Drene, vierta o bombee el agua de enjuague hacia adentro del equipo de aplicación o en un sistema recolector de agua de enjuague. Repita este procedimiento de enjuague a presión dos veces más. Luego, para envases de plástico, ofrezca para el reciclaje si está disponible o perfore y deseche en un área adecuada para desechos sanitarios, o mediante incineración. Para envases de metal, ofrezca para el reciclaje si está disponible o el reacondicionado si está adecuado, o perfore y deseche en un área adecuada para desechos sanitarios o por otros procedimientos aprobados por las autoridades estatales y locales.

**Bolsas de papel o plástico, sacos de fibra, incluidos los Envases Flexibles Intermedios para Productos a Granel (FIBC por sus siglas en inglés) o tambores de fibra con bolsa:** Envase no rellenable. **NO** reutilice ni rellene este envase. Vacíe por completo la bolsa de papel o plástico, saco de fibra con bolsa interior para tambores, sacudiéndolos y golpeando los lados y el fondo de estos para aflojar las partículas pegadas. Vacíe los residuos en el equipo de aplicación o de fabricación. Después, ofrezca para reciclaje, si el servicio está disponible o deseche la bolsa de papel o plástico, saco de fibra o tambor de fibra y bolsa en un vertedero sanitario o para incineración. **NO** quemar a menos que esté permitido por las ordenanzas estatales y locales.

*(continuado)*

## ALMACENAMIENTO Y DESECHO (continuado)

### MANIPULACIÓN DE ENVASES: (continuado)

**Tambores de fibra con bolsa rellenables: Envase rellenable (sólo bidón de fibra). Rellenando el tambor de fibra:** Rellene este tambor de fibra únicamente con este pesticida. **NO** reutilice este tambor de fibra para ningún otro propósito. La limpieza antes de rellenar es la responsabilidad de la persona que lo va a rellenar. Vacíe por completo la bolsa interior, sacudiéndola y golpeando los lados y el fondo de la misma para aflojar las partículas pegadas. Vacíe los residuos en el equipo de aplicación o de fabricación. Desecho del tambor de fibra y/o bolsa interior: **NO** reutilice este tambor de fibra para ningún otro propósito que no sea el de rellenar (véase más arriba). La limpieza del envase (bolsa interior y/o tambor de fibra) antes de su desecho final es responsabilidad de la persona que lo desecha. Ofrezca la bolsa interior para reciclaje, si el servicio está disponible, o deshágase de la misma en un vertedero sanitario o mediante incineración. **NO** lo queme a menos que esté permitido por las ordenanzas estatales y locales. Si el tambor está contaminado y no se puede reutilizar, deséchelo de la misma manera requerida para sus bolsas interiores. Para limpiar el tambor de fibra antes de su desecho final, vacíe por completo el tambor de fibra, sacudiendo y golpeando los lados y el fondo para aflojar las partículas pegadas. Vacíe los residuos en el equipo de aplicación o industrial. Luego, ofrezca el tambor de fibra para reciclar si está disponible o deséchelo en un vertedero sanitario o incinérelo. **NO** queme a menos que esté permitido por las ordenanzas estatales y locales.

**Todo otro envases rellenables:** Envase rellenable. Rellenado del envase: Rellene este envase únicamente con pesticida. **NO** reutilice este envase para ningún otro propósito. La limpieza antes de rellenar es la responsabilidad de la persona que lo va a rellenar. Antes de rellenar, inspeccione cuidadosamente en busca de daños tales como grietas, perforaciones, abrasiones, roscas desgastadas y dispositivos de cierre. Si se detectan daños, **NO** utilice el envase y póngase en contacto con CHEMTREC al número que aparece a continuación para obtener instrucciones. Compruebe que no haya fugas después del rellenado y antes del transporte. Si se detectan fugas, **NO** reutilice ni transporte el contenedor; póngase en contacto con CHEMTREC al número que aparece a continuación para obtener instrucciones. Desecho del envase: **NO** reutilice este envase para ningún otro propósito que no sea su relleno (vea la sección anterior). La limpieza del envase antes de su eliminación final es la responsabilidad de la persona que se deshace del envase. Para limpiar el envase antes de su desecho final, utilice el siguiente procedimiento de enjuague a presión. Inserte una lanza con boquilla apropiada para la limpieza de tanques en el envase, y asegúrese de que el agua asperjada cubra completamente la parte superior, parte inferior y los lados del interior del envase. El fabricante de las boquillas generalmente proporciona instrucciones acerca de la presión de aspersión adecuada, la duración de la aspersión y/o volumen de aspersión. Si las instrucciones del fabricante no están disponibles, enjuague el envase a presión por lo menos durante 60 segundos usando una presión mínima de 30 PSI (libras por pulgada cuadrada), con un volumen de enjuague mínimo del 10% del volumen del envase. Drene, vierta o bombee el agua de enjuague hacia dentro del equipo de aplicación o en un sistema recolector de agua de enjuague. Luego, ofrezca el envase para su reciclaje o reacondicionamiento, o perforo el envase y deséchelo en un vertedero sanitario o mediante incineración. **NO** queme el envase, a menos que lo permitan las ordenanzas estatales y locales. Para envases de metal, ofrezca para el reciclaje si está disponible o el reacondicionado si está adecuado, o perforo y deseché en un área adecuada para desechos sanitarios o por otros procedimientos aprobados por las autoridades estatales y locales.

**NOTES**

**NOTES**

PYRACLOSTROBIN GROUP 11 FUNGICIDE

# Ribbon

OPEN HERE 

For Disease Control in Turfgrass and Ornamentals.

**ACTIVE INGREDIENT:**

	WT. BY %
Pyraclostrobin: (carbamic acid, [2-[[[1-(4-chlorophenyl)-1H-pyrazol-3-yl]oxy)methyl]phenyl]methoxy-, methyl ester) .....	20.0%

<b>OTHER INGREDIENTS:</b> .....	80.0%
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<b>TOTAL:</b> .....	100.0%
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\*This product contains 0.200 oz. (0.0125 lb.) of pyraclostrobin in 1 oz.

## KEEP OUT OF REACH OF CHILDREN CAUTION / PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you **DO NOT** understand this label, find someone to explain it to you in detail.)

See label booklet for complete  
First Aid, Precautionary Statements,  
Directions For Use, and Storage and Disposal.

EPA Reg. No. 83529-316 EPA Est. No. (AG) 72159-GA-001; (MC) 89332-GA-001; (SC) 39578-TX-001  
The EPA Establishment Number is identified by the circled letters above that match the first two letters in the batch number.

Manufactured For:

**Sharda USA LLC** 

7217 Lancaster Pike, Suite A, Hockessin, Delaware 19707

Net Contents: **7.2 lbs.**