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b. A satisfactory 2-Year Chronic Toxicology Study in rats study must be submitted for female rats by September 30, 2006. The primary deficiency in the results for female rats in the study previously submitted is that the highest administered dose was well below the sub-chronic maximum dose and there were no significant treatment-related toxicological effects.

c. A satisfactory 18-Month Carcinogenicity Study in mice must be submitted for female mice by September 30, 2006. The primary deficiency in the results for female mice in the study previously submitted is that the highest administered dose was well below the subchronic maximum tolerated dose and there were no significant systemic treatment-related toxicological effects of the dosing.

d. A satisfactory 2-Generation Multigeneration Reproduction Study in rats must be submitted by September 30, 2005. The primary deficiencies in the study previously submitted are that there were no adverse, treatment-related maternal, reproductive, or offspring effects at the highest dose tested, and the limit dose was not approached.

e. A satisfactory 28-Day Dermal Toxicity Study in rats must be submitted by September 30, 2004. The primary deficiencies in the study previously submitted is that there were no treatment-related systemic effects noted at the highest dose tested, and the limit dose was not approached.

f. A satisfactory 28-Day Inhalation Toxicity Study in Rats must be submitted by September 30, 2004. This study is required due to the potential for inhalation occupational/residential exposure, which we cannot currently assess. This study must be performed using: a) the same form of pyraclostrobin to which workers will be exposed and b) the protocol for the 90-Day Inhalation Toxicity Study, but over a 28-day exposure period.

g. A satisfactory Aerobic Aquatic Metabolism (Guideline Requirement Number (GRN) 162-4) study must be submitted by September 30, 2005. One of the two studies submitted previously was judged to be Supplementary, the other Unacceptable.

h. A satisfactory study of the acute aquatic toxicity of the major pyraclostrobin degradates, BF 500-3 and BF 500-6, to freshwater fish (rainbow trout) must be submitted by September 30, 2005.

i. A satisfactory study of the acute aquatic toxicity of the major pyraclostrobin degradates, BF 500-3 and BF 500-6, to freshwater invertebrates (daphnia) must be submitted by September 30, 2005. Page 3 EPA Reg. No. 7969-184

j. A satisfactory study of the acute aquatic toxicity of the major pyraclostrobin degradates, BF 500-3 and BF 500-6, to freshwater green algae must be submitted by September 30, 2005.

k. A satisfactory study of the acute aquatic toxicity of pyraclostrobin to sediment-dwelling organisms (chironomids and amphipods) must be submitted by September 30, 2005.

1. A satisfactory Mysid Life-cycle Study of pyraclostrobin must be submitted by September 30, 2005.

4. Submit one copy of your final printed label before you release this product for shipment.

The registration of the subject product shall terminate automatically on September 30, 2007 unless the Agency, prior to that date and in writing, amends this term and condition to alter or eliminate this termination date. Your release for shipment of the product constitutes acceptance of all preceding conditions.

Attachments: Product label, stamped "Accepted with Comments"



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FIRST AID				
If swallowed	<ul> <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>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>			
l <b>f on ski</b> n or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
If inhaled	<ul> <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>			
	HOT LINE NUMBER			

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASE Corporation for emergency medical treatment information: 1-800-832-HELP (4357).

# Precautionary Statements

### Hazards to Humans and Domestic Animals

**Caution.** Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing.

### Personal Protective Equipment (PPE)

Some materials that are chemically resistant to this product are listed below. For more options refer to Category A on an EPA chemical resistance category selection chart

### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of any waterproof material (such as nitrile, butyl, neoprene and/or barrier laminate)
- · Shoes plus socks

Follow the manufacturer's instructions for cleaning and maintaining PPE. if no such instructions for washables, 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:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing 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 product may contaminate water through drift of spray in wind. This product has a potential for runoff for several months or more after applications. 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 such as bonds, 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 forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

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, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

### **Directions For Use**

It is a violation of federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

# **Nonagricultural 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, nurseries, or greenhouses.

Do not enter or allow others to enter treated areas until sprays have dried.

### Storage and Disposal

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

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

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Container Disposal: Triple rinse (or equivalent). Puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### In Case of Spill

In case of large-scale spillage regarding this product, call:

CHEMTREC 800-424-9300 BASF Corporation 800-832-HELP (4357)

Steps to be taken in case material is released or spilled:

Dike and contain spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.

Remove contaminated clothing, and wash affected skin areas with soap and water.

Wash clothing before re-use.

Keep spill out of all sewers and open bodies of water.

# I. General Information

This package contains Insignia<sup>®</sup> fungicide, a water dispersible granule (WG). The active ingredient in Insignia, pyraclostrobin, is a member of the strobilurin class of chemistry and is derived from a natural antifungal substance. Optimum disease control is achieved when Insignia is applied in a regularly scheduled protective spray program and is used in a rotation program with other fungicides. Because of its high specific activity, Insignia has good residual activity against target fungi.

Mode of Action: Pyraclostrobin, the active ingredient of **Insignia**, belongs to the group of respiration inhibitors classified by the U.S. EPA and Canada PMRA as **Quinone Outside Inhibitors (QoI)** or Target Site of Action Group 11 fungicides.

### **II. Application Information**

Insignia is a broad-spectrum fungicide recommended for the control of many important diseases of turfgrass. For maximum efficacy, Insignia should be applied preventively but also may be used curatively for some diseases. **Insignia** may be applied as a solo foliar spray or in tank mixes with other registered turfgrass fungicides. Do not exceed the recommended application rate or fail to comply with use restrictions listed in the **Resistance** Management and General Restrictions and

Limitations sections. All applications should be made according to the use directions that follow. Failure to follow directions and precautions on this label may result in turfgrass injury and/or inferior disease control.

### **Turfgrass Uses and Tolerance:** Insignia can be used on golf course turfgrass only. Due to variability within turfgrass species. application techniques and possible tank mixes,

neither the manufacturer nor the seller has determined whether or not Insignia can safely be used on all turfgrasses under all conditions.

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

#### Spray Instructions:

Spray instructions: For maximum efficacy, **insignia** should be applied prior to or in the early stages of disease development. For maximum efficacy, apply **insignia** at the rates indicated in **Table 1** in 2 to 4 gallons of water per 1,000 square feet (87 to 174 gallons per acre). Use the shorter specified application interval and/or the higher specified rate when prolonged favorable higher specified rate when prolonged favorable disease conditions exist. Applications should be repeated at the specified interval as necessary.

· Insignia is most effective when applied preventatively.

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

- Calibrate spray prior to use. After application, allow foliage to dry prior to mowing or irrigation.
- Apply Insignia using sufficient water volume and pressure for adequate coverage of the foliage.
- · Apply the recommended rate of Insignia as instructed in the Specific Use Directions with ground spray equipment.

# **Resistance Management**

Insignia contains pyraclostrobin, a Group 11 fungicide, and is effective against pathogens resistant to fungicides with modes of action different from those of Qol fungicides (target site of action Group 11), such as the dicarboximides, sterol inhibitors, benzimidazoles, or phenylamides. Fungal isolates resistant to Group 11 fungicides, such as pyraclostrobin, azoxystrobin, and trifloxystrobin may eventually dominate the fungal population if **Group 11** fungicides are used predominantly and repeatedly in the same turfgrass area in successive years as the primary method of control for the targeted pathogen species. This may result in reduction of disease control by **Insignia** or other Group 11 fungicides.

To maintain the performance of **Insignia** in turfgrass, do not exceed the total number of sequential applications of Insignia. Adhere to the label instructions regarding the consecutive use of Insignia or other target site of action Group 11 fungicides that have a similar site of action on the same pathogens.

#### The following recommendations may be considered to delay the development of fungicide resistance:

1. Tank mixtures: Use tank mixtures with fungicides from different target site of action Groups that are registered/permitted for the same use and that are effective against the pathogens of concern. BASF recommends using at least the minimum labeled rates of each fungicide in the tank mix.

IPM: insignia should be integrated into an overall disease and pest management program. Cultural practices known to reduce disease development should be followed. Insignia may be used in advisory (disease forecasting) programs which recommend application timing based on environmental factors favorable for disease development.

3. **Monitoring:** Monitor efficacy of all fungicides used in the disease management program against the targeted pathogen and record other factors that may influence fungicide performance and/or disease development. If a **Group 11** target site fungicide, such as **Insignia<sup>®</sup> fungicide**, appears to be less effective against a pathogen that it previously controlled or suppressed, contact a BASF representative or local turfgrass expert for further investigation

Do not make more than two (2) sequential applications of **Insignia** for Pythium blight, gray leaf spot, dollar spot,or anthracnose. Then alternate to an effective non-strobilurin fungicide before reapplying **Insignia**. Do not make more than three (3) consecutive applications of **Insignia** for all other diseases. Then alternate to an effective non-strobilurin fungicide before reapplying **Insignia**.

# III. Addition of Additives

Do not use with organosilicate-based adjuvants or turfgrass 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 **Insignia** can be used safely with all additives.

### IV. General Tank Mixing Information

#### Tank Mix Partners/Components

Insignia is compatible with most fungicide, insecticide and fertilizer products. If tank mixtures are used, adhere to restrictions due to rates, label recommendations and precautions on all labels. Physical incompatibility, reduced disease control, or turfgrass injury may result from mixing Insignia with fungicides, herbicides, insecticides, additives, or fertilizers. To improve control of certain diseases, Insignia may be tank mixed with other effective (nonstrobilurin) fungicides such as Curalan<sup>®</sup> EG fungicide, Iprodione Pro or Propiconazole Pro.

# 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 recommended label rate per acre.

- 1) Water: For 87 gallons per acre (2 gallons per 1000 square feet) 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 suspo-emulsions)- Cap the jar and invert 10 cycles.
- 3) **Water-soluble products:** Cap the jar and invert 10 cycles.

- Emulsifiable concentrates: (oil concentrate or methylated seed oil when applicable)- Cap the jar and invert 10 cycles.
- 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 should 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 such as Insignia® fungicide, 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 **Insignia**.

# V. General Restrictions and Limitations

- Maximum seasonal use rate: Do not apply more than a total of 5.5 ounces of Insignia per 1,000 sq. ft. per year (15.0 pounds Insignia per acre per year).
- · Refer to section Specific Use Directions for sequential application intervals for Insignia.
- Do not apply this product to crops other than golf course turfgrass.
- · Do not apply through any type of irrigation equipment to golf course turfgrass.
- . This product cannot be used to formulate or reformulate any other pesticide product.

# **Specific Use Directions**

# Golf Course Turfgrass

**Insignia** is recommended for the control of anthracnose, bentgrass dead spot, brown patch, dollar spot (suppression only), fairy ring, Fusarium patch, gray leaf spot, gray snow mold, leaf spot, melting out, pink patch, pink snow mold, powdery mildew, Pythium blight, rapid blight, red thread, rust, summer patch and take-all patch.

**Insignia** 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 **Insignia** with another effective (non-strobilurin) fungicide. For optimum control of gray snow mold and pink snow mold, tank mix **Insignia** with another effective (non-strobilurin) fungicide.

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

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Table 1. Application Rates and intervals for insignia fungicide on Golf Course Turfgrass				
Disease (Pathogen)	Use Rate(oz. Product per 1,000 sq. ft.)	Use Rate(oz. Product per Acre)	Application Interval (days)	Comments <sup>1</sup>
Anthracnose (Colletotrichum graminicola)	0.5 to 0.9	22 to 40	14 to 28	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.
Bentgrass Dead Spot (Ophiosphaerella agrostis)	0.5 to 0.9	22 to 40	14 to 28	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.
Brown Patch ( <i>Rhizoctonia solani</i> )	0.5 to 0.9	22 to 40	14 to 28	Apply when conditions are favorable for disease development.
Dollar Spot ( <i>Sclerotinia</i> <i>homoeocarpa</i> ) <b>(Suppression Only)</b>	0.9	40	14	<b>Insignia</b> 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 <b>Insignia</b> with another effective dollar spot fungicide such as Curalan <sup>e</sup> EG fungicide, Iprodione Pro or Propiconazole Pro. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.
Fairy Ring (various Basidiomycete fungi)	0.9	40	28	Apply as soon as possible after fairy ring symptom development. Fairy ring symptoms may take 2 to 3 weeks to disappear following application. Reapplication after 28 days may be required.
Fusarium patch ( <i>Microdochium nivale</i> )	0.5 to 0.9	22 to 40	14 to 28	In the absence of snow cover, use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.
Gray Leaf Spot ( <i>Pyricularia grisea</i> )	0.5 to 0.9	22 to 40	14 to 28	Use preventively. Begin applications when conditions are favorable for fungai infection, prior to disease symptom development.
Gray Snow Mold (Typhula incarnata)	0.9	40	14 to 28	Make 2 applications, 14 to 28 days apart in late fall just prior to snow cover. For optimum control before extended periods of snow cover, tank mix <b>Insignia</b> with another effective (non-strobilurin) fungicide such as Iprodione Pro, Curalan EG or Propiconazole Pro.
Leaf Spot( <i>Bipolaris,</i> <i>Dr echslera</i> , and <i>Exserohilum</i> spp.)	0.5 to 0.9	22 to 40	14 to 28	Apply when conditions are favorable for disease development.

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 Table 1: (cont'd). Application Rates and Intervals for Insignia® fungicide on Golf Course

 Turfgrass

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Disease (Pathogen)	Use Rate(oz. Product per	Use Rate(oz. Product per	Application Interval (days)	Comments <sup>1</sup>
Melting Out (Drechslera poae)	0.5 to 0.9	22 to 40	14 to 28	Apply when conditions are favorable for disease development.
Pink Patch (Limonomyces roseipellis)	0.5 to 0.9	22 to 40	14 to 28	Apply when conditions are favorable for disease development.
Pink Snow Mold ( <i>Microdochium nivale</i> )	0.9	40	14 to 28	Make 2 applications, 14 to 28 days apart in late fall just prior to snow cover. For optimum control before extended periods of snow cover, tank mix <b>Insignia</b> with another effective (non-strobilurin) fungicide such as Iprodione Pro, Curatan EG or Propiconazole Pro
Powdery Mildew (Blumeria graminis)	0.5 to 0.9	22 to 40	14 to 28	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.
Pythium blight (Pythium aphanidermatum, Pythium spp.)	0.9	40	10 to 14	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development. Tank mix <b>Insignia</b> with another (non-strobilurin) fungicide labeled for Pythium blight control during severe disease pressure or when symptoms are already present.
Rapid Blight ( <i>Labyrinthula</i> spp.)	0.5 to 0.9	22 to 40	14	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.
Red Thread (Laetisaria fuciformis)	0.5 to 0.9	22 to 40	14 to 28	Apply when conditions are favorable for disease development.
Rust ( <i>Puccinia and Uromyces</i> spp.)	0.5 to 0.9	22 to 40	14 to 28	Apply when conditions are favorable for disease development.
Summer patch (Magnaporthe poae)	0.5 to 0.9	22 to 40	14 to 28	Initiate applications in the spring when soil temperatures reach 60 to 65° F at a 2-inch soil depth, or as dictated by local recommendations.
Take-all Patch (Gaeumannomyces graminis var. avenae)	0.9	40	28	Use preventively. Begin 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.

<sup>1</sup> Do not apply more than two (2) sequential applications of **Insignia** for anthracnose, dollar spot, gray leaf spot or Pythium blight. For all other diseases, when anthracnose, dollar spot, gray leaf spot or Pythium blight are not present, do not apply more than three (3) sequential applications of **Insignia**. Then alternate to an effective non-strobilurin fungicide before reapplying **Insignia**.

Table 2. Dilution Table for Spray Solutions of Insignia® fungicide						
C	Ounces of Insignia per 100 gallons of spray solution					
Insignia Use Rate (oz. per 1000 sq. ft.)	Spray Volume-2 gailons per 1000 sq. ft.	Spray Volume-3 gallons per 1000 sq. ft.	Spray Volume-4 gallons per 1000 sq. ft.			
0.5	25	16.7	12.5			
0.7	35	23.3	17.5			
0.9	45	30	22.5			

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# **Conditions of Sale and Warranty**

The Directions For Use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. All such risks shall be assumed by the Buyer. BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions For Use, subject to the inherent risks, referred to above. BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL BASF OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

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