

GROUP 29 FUNGICIDE

**Armor**  **Tech**®

# ROTATOR™

## FUNGICIDE

**For use to control certain diseases of turf grasses on golf courses only.**

**Active Ingredient:**

Fluazinam: 3-chloro-N-[3-chloro-2,6-dinitro-4-trifluoromethyl]phenyl]-5-trifluoromethyl-2-pyridinamine (CA) ..... 40.0%

**Other Ingredients:**..... 60.0%

**Total:** ..... 100.0%

Contains 4.17 pounds fluazinam per gallon (500 grams per liter)

### KEEP OUT OF REACH OF CHILDREN CAUTION

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

**SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS**

**For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300  
For Medical Emergencies Only, Call (877) 325-1840**

EPA REG. NO. 228-737

**NET CONTENTS:  
1 GAL. (3.78 L)**

Manufactured by NUFARM AMERICAS INC. • 11901 S. Austin Avenue • Alsip, IL 60803

**United Turf Alliance**



## FIRST AID

<b>IF ON SKIN</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 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>IF SWALLOWED:</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to by a poison control center or doctor.</li><li>• Do not give anything to an unconscious person.</li></ul>

## NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

## 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 1-877-325-1840 for emergency medical treatment information.

# PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before use. Do not take internally.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

### Applicators and other handlers must wear:

- Coveralls worn over long-sleeved shirt, long pants
- Chemical-resistant gloves made of any waterproof material (such as polyethylene or polyvinyl chloride).
- Protective eyewear
- Chemical resistant footwear and socks

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. Do not allow contact of contaminated clothing with unprotected skin.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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

When handlers use closed systems, or enclosed cabs, 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.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for “applicators and other handlers” and have such PPE immediately available for use in an emergency, such as a spill or equipment break down. Do not allow contact between contaminated sprayer parts and unprotected skin. Ensure sprayer is washed down daily.

### **USER SAFETY RECOMMENDATIONS**

**Users Should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- 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.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

### **Environmental Hazards**

This product is toxic to fish and aquatic invertebrates. 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 washwater or rinsate. Do not apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas.

### **Physical Chemical Hazards**

Combustible. Do not use or store near heat or open flame.

## **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Failure to follow the use directions and precautions on this label may result in turf injury, poor disease control, and/or illegal residues. 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 State or Tribal agency responsible for pesticide regulation.

### **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. Turf grasses on golf courses are not within the scope of the Worker Protection Standard.

**Do not enter treated areas until sprays have dried.**

### **PRODUCT INFORMATION**

This product is a broad spectrum fungicide for use to control diseases of turf grasses on golf courses only.

This product may be applied with all types of spray equipment normally used for ground applications on golf courses.

Apply this product in sufficient water to obtain adequate uniform coverage of the turf. Apply in a minimum spray volume of 50 gal of water per acre.

## **USE RESTRICTIONS**

- Do not apply this product to home lawns (turf) or any other residential turf
- Do not apply this product by aerial application
- Do not apply this product through any irrigation system
- Do not apply this product within 25 feet of permanent water bodies (lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, and estuaries)
- Do not apply this product when the wind direction is toward aquatic areas to minimize drift to these areas.
- Do not exceed 258 fl. oz. of this product (8.4 lbs. active ingredient) per acre per year.
- Do not apply more than twelve (12) applications at 21.5 fl. oz. per acre (0.5 fl. oz./1000 sq. ft.) per year.

## **USE PRECAUTIONS**

- Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions.
- Where states have more stringent regulations, they must be observed.

## **INTEGRATED PEST MANAGEMENT**

This product is an excellent disease control agent when used according to label directions for control of a broad spectrum of listed plant diseases. This product is for use in programs which are compatible with the principles of Integrated Pest Management (IPM), which may include the use of disease resistant crop varieties, cultural practices, biological control agents, pest scouting and disease forecasting systems aimed at preventing economic pest damage and reducing unnecessary applications of pesticides. Practices known to reduce disease development should be followed. Consult your state cooperative extension service or local agricultural authorities for additional IPM strategies established in your area. This product may be used in State Agricultural Extension advisory (disease forecasting) programs that recommend application timing based on environmental factors which favor disease development.

## **RESISTANCE MANAGEMENT**

Some plant pathogens are known to develop resistance to products used repeatedly for disease control. This product is effective for strategic use in fungicide disease management programs that attempt to minimize disease resistance to fungicides. This product has a multi-site mode of action that disrupts the energy production in the fungus. It is listed in FRAC code 29, as an uncoupler of oxidative phosphorylation. Some other fungicides, which are at risk from disease resistance, exhibit a single-site mode of fungicidal action. This product, with its multi-site mode of action, may be used to prevent or delay the development of resistance to single-site fungicides when used as a tank-mix partner or alternated in a disease management program.

This product has demonstrated excellent control of *Sclerotinia homeocarpa*, *Lanzia* and *Moellerodiscus* strains (causing Dollar Spot) that are insensitive to several classes of fungicides.

Consult with your Federal or State Cooperative Extension Service representatives for guidance on the proper use of this product in programs that seek to minimize the occurrence of disease resistance to other fungicides. This product is an excellent partner for those products that specify the use of a protectant or other fungicide that has a different mode of action.

## **PLANT TOLERANCE**

**NOTE TO USER:** Although this product has been evaluated on several turf species with no indication of phytotoxicity, neither the manufacturer nor seller has determined whether or not THIS PRODUCT can be used safely on all turf species. The professional user should determine if this product can be used safely prior to commercial use by testing on the type of turf to be treated as recommended rates for phytotoxicity.

## MIXING AND SPRAYING

This product can be used effectively in dilute sprays. Thorough, uniform coverage is essential for disease control.

**NOTE:** Slowly invert container several times to assure uniform mixture.

Prepare only the amount of spray mixture required for immediate use. Thoroughly clean spray equipment before using this product. Vigorous agitation is necessary for proper dispersal of the product. Maintain maximum agitation throughout the spraying operation. Do not allow spray mixture to stand overnight or for prolonged periods in the spray tank. Spraying equipment should be thoroughly cleaned immediately after the application.

**Product Alone:** Fill the spray tank with half of the required amount of water with the agitator running, add this product to the spray tank. Continue agitation while adding the remainder of the water. Begin application of the solution after this product has completely dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

**Tank Mixtures:** This product is physically compatible with many products recommended for control of diseases, liquid fertilizers, growth regulators, insecticides and biological control products. If tank mixes are desired, read and follow all directions, precautions, and limitations on labeling of all products used. This product must not be mixed with any product which prohibits such mixing. It is the applicator's responsibility to ensure that the companion product is EPA approved for use on the intended site. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are registered.

This product is generally compatible with the products mentioned above, provided sufficient free water is available for dispersion of all the tank mix products. However, the physical compatibility of this product with tank mix partners should be evaluated before use. A jar test should be conducted with the intended tank-mix products prior to preparation of large volumes. Use the following procedure:

### Jar Compatibility Test:

1. Pour the recommended proportions of the products into a suitable container of water;
2. Mix thoroughly; and
3. Allow to stand for 5 minutes.

If the combination remains mixed or can be re-mixed readily, it is considered physically compatible. Any physical incompatibility in the jar test indicates that this product should not be used in the tank mix.

Consult compatibility charts or your local or state agricultural authorities for additional compatibility information.

### To prepare spray solution:

- Add ½ of the required amount of water to the mix/sprayer tank
- Start the agitator running before adding any tank mix partners.
- Add the tank mix partners in the following order:
  - o Products packaged in water-soluble packaging;
  - o Wettable powders;
  - o Wettable granules (dry flowables);
  - o Liquid flowables (such as this product);
  - o Liquids; and
  - o Emulsifiable concentrates
- Always allow each tank mix partner to become fully dispersed before adding the next product.
- Provide sufficient agitation while adding the remainder of the water.
- Maintain agitation until all of the mixture has been applied.
- When using this product in tank mixtures, add all products in water-soluble packaging to the tank before any other tank mix partner, including this product.

- Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank.
- Use a pump with capacity to maintain the correct rated pressure for the nozzles selected.
- Maintain sufficient agitation to keep mixture in suspension.
- Use a jet agitator, liquid sparge tube, or mechanical paddle for agitation.
- Use screens to prevent nozzles from clogging. Use 50-mesh or coarser screens placed after the tank and before the nozzles. Check nozzle manufacturer's recommendations.
- For more information on spray equipment and calibration, consult sprayer manufacturers and state recommendations.

## TURFGRASS DISEASE CONTROL

1. Use this product in a Preventative Disease Control Program.
2. Apply in sufficient water to ensure thorough coverage.
3. Apply after mowing or allow sprayed area to completely dry before mowing.
4. For control of foliar diseases, allow sprayed area to completely dry before irrigation.
5. For optimum turf quality and disease control, use this product in conjunction with turf management practices that promote good plant health and optimum disease control.
6. Evaluate spray additives prior to use. Label directions are based on data obtained with no additives.
7. Before use of any fungicide, proper diagnosis of the organism causing the disease is important. Use of diagnostic kits or other means of identification of the disease organism is essential to determine the best control measures.

### USE RATE

Diseases Controlled Pathogen(s)	Application Interval (days)	Rate fl. oz. product/1000 sq. ft.	Instructions for Use on Golf Course Tees, Greens, Fairways and Roughs
Dollar Spot <i>Sclerotinia homeocarpa</i> <i>Lanzia</i> spp. <i>Moellerodiscus</i> spp.	14	0.5	Apply as a preventative disease program, starting when conditions become favorable for disease. For broad spectrum disease control or for control greater than 14 days, tank mix with the labeled rate of another fungicide labeled for control of this disease, such as ArmorTech ZOXY-T, ArmorTech TEB 360 XL or ArmorTech PPZ 143 MC.
Leaf spot, Melting-out, Brown blight <i>Drechslera</i> spp. (including <i>D. poae</i> , <i>D.</i> <i>siccans</i> )	14	0.5	Apply when conditions become favorable for disease. For broad spectrum disease control tank mix with the labeled rate of another fungicide labeled for control of these diseases, such as ArmorTech ZOXY-T, ArmorTech TEB 360 XL, ArmorTech PPZ 143 MC, Tourney or Affirm™.

(continued)



## USE RATE *(continued)*

Diseases Controlled Pathogen(s)	Application Interval (days)	Rate fl. oz. product/1000 sq. ft.	Instructions for Use on Golf Course Tees, Greens, Fairways and Roughs
Brown patch Large patch <i>Rhizoctonia solani</i>	14	0.5	Begin applications in May or June before disease is present for Brown patch. To control Large patch, apply in fall when temperature drops below 70°F. For broad spectrum control or for control greater than 14 days, tank mix with the labeled rate of another fungicide labeled for control of these diseases, such as ArmorTech ZOXY 2 SC, ArmorTech ZOXY-T, ArmorTech TEB 360 XL, ArmorTech PPZ 143 MC, Tourney or Affirm.
Red Thread <i>Laetisaria fuciformis</i>	14	0.5	Apply when conditions become favorable for disease.
Anthracnose <i>Colletotrichim cereal</i>	14	0.5	Applications should be made prior to infection. Alternate or tank mix this product with another fungicide for anthracnose disease prevention. This product should be tank mixed with the labeled rate of another fungicide labeled for control of this disease, such as ArmorTech CLT 720, ArmorTech CLT 825, ArmorTech ZOXY-T, ArmorTech TEB 360 XL, ArmorTech PPZ 143 MC, Tourney or Affirm.
Gray Snow Mold <i>Typhula</i> spp.  Pink Snow Mold <i>Microdochium nivale</i>	Late Fall	0.5	Apply one to two applications in the late fall before snow cover. Do not apply on top of the snow. For optimum disease control, tank mix with the labeled rate of another fungicide labeled for control of these diseases, such as ArmorTech ZOXY 2 SC, ArmorTech ZOXY-T, ArmorTech TEB 360 XL, ArmorTech PPZ 143 MC, ArmorTech TMI 2020 XL or Tourney.
Pink patch <i>Microdochium nivale</i>	14	0.5	Apply in the fall or early spring when conditions are favorable for disease development. For optimum disease control, tank mix with the labeled rate of another fungicide labeled for control of this disease, such as ArmorTech ZOXY 2 SC, ArmorTech ZOXY-T, ArmorTech TEB 360 XL, ArmorTech TMI 2020 XL, ArmorTech PPZ 143 MC, Tourney or 3336®.
Stem rust <i>Puccinia graminis</i> var. <i>graminicola</i>	14	0.5	Apply on a preventative schedule when disease conditions are favorable (cool and cloudy weather).
Algal scum (filamentous blue-green algae/cyanobacteria)	14	0.5	This product should be tank mixed with another fungicide labeled for control of this disease, such as ArmorTech CLT 720, ArmorTech CLT 825 or Protect™ DF.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original container, in a secured, cool, dry place separate from food and feed. **DO NOT** store near heat or open flame.

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

### **CONTAINER HANDLING:**

**NOTE:** This product is available in multiple containers. Refer to the Net Contents section of this products labeling for the applicable "Nonrefillable" or "Refillable" designation. Follow the container disposal instructions below that apply to your container type / size.

### **Nonrefillable Containers 5 Gallons or Less**

**Nonrefillable container. DO NOT** reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. 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 offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration.

### **Nonrefillable containers larger than 5 gallons**

**Nonrefillable container. DO NOT** reuse or refill this container. Offer for recycling if available. Triple rinse or pressure 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 offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

**Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.



## **WARRANTY DISCLAIMER**

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