

# EcoGuard™

## BIOFUNGICIDE

For use on

**Golf Courses, Lawns and other ornamental turfgrass**

### Active Ingredients:

*Bacillus licheniformis* SB3086\* .....0.14% (w/v)

Indole-3-butyric Acid\*\* .....0.00096% (w/v)

**Other Ingredients:** .....99.85904% (w/v)

**Total** .....100.00%

\*Contains a minimum of  $1.0 \times 10^9$  Colony Forming Units (CFU)/ml

\*\*A non-fungicidal plant growth regulating ingredient shown to improve the overall growth and health of turf and ornamental plants.

**Keep Out of Reach of Children**

**CAUTION**

See side panel for additional Precautionary Statements.

**NET CONTENTS 2.5 GAL (9.46 L)**

**roots®**

v1204

**novozymes** 

For information on product use, availability or MSDS requests, please contact

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EPA Reg. No. 70127-2 EPA Est. 70127-VA-001

ISO 9001-2000 Cert. No. 100599

U.S. Patent No. 6,569,425

## 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 when weather conditions, cultural practices, extreme moisture conditions or other environmental conditions are outside of the ranges that are generally recognized as conducive to good growing practices. Do not apply with solutions containing strong acids, bases, oxidizing agents, or solvents.

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.

### 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 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 4 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, such as plants, soil, or water, is: coveralls, and shoes plus socks and protective eyewear.

### Product Description:

**EcoGuard** is a concentrated suspension of the bacterial spores of the organism *Bacillus licheniformis* SB3086 (U.S. Patent No. 6,569,425), which has been found effective as a natural inhibitor of a variety of agronomically important fungal disease species.

### Product Use Sites:

**EcoGuard** is applied as a foliar spray or soil drench on ornamental turf at the following sites: lawns, golf courses, sports turf, turf farms and arboretums. **EcoGuard** is a preventative or curative treatment for a variety of fungal diseases, such as those listed below.

### INCLUSION IN PEST MANAGEMENT PROGRAM:

**EcoGuard** also works well as part of an Integrated Pest Management (IPM) program, especially to help reduce the occurrence of disease resistance to other fungicide products. In addition, during times of high disease pressure, such combinations may provide optimal pest management while reducing overall yearly pesticide application amounts. Such an integrated program may be achieved by regular rotation of the treatments using **EcoGuard** with treatments of other fungicides. Another approach is to apply **EcoGuard** until the onset of high disease pressure, then to substitute another fungicide (at standard application rates) for a brief period (1-4 treatments) followed by a return to standard applications of **EcoGuard**.

**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. Novozymes Biologicals warrants that at the time of the first sale of this product it conforms to the chemical description on the label and when used according to the label directions under normal growing conditions is reasonably fit for the purposes referred to above. Buyers/Users of this product assume full risk for any use contrary to the specified directions. If this product does not perform as warranted above and to the extent permitted by state law, customer's sole remedy for breach of warranty shall be replacement of the product or refund of the purchase price paid, at the option of Novozymes Biologicals. EXCEPT AS PROVIDED ELSEWHERE IN WRITING CONTAINING AN EXPRESS REFERENCE TO THIS WARRANTY AND LIMITATION OF DAMAGES, SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OR GUARANTY, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY, AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO.

### Targeted Diseases on Golf Courses, Lawns and Other Turfgrass:

#### For control of:

Dollar Spot *Sclerotinia homoeocarpa*  
Anthracnose *Colletotrichum graminicola*

#### To aid in the suppression of:

Brown Patch *Rhizoctonia solani*

### Golf Course greens, tees, fairways, ornamental turfgrass, lawns, and sports turf:

Apply **EcoGuard** in an adequate amount of water to provide complete coverage. For greens and tees, amount of water to deliver **EcoGuard** may vary from 2-4 gal. per 1000 ft<sup>2</sup> depending on application equipment. For fairways, the amount of water to deliver **EcoGuard** may vary from 0.7-2.0 gal. per 1000 ft<sup>2</sup>. See the following chart for application rates, timing, and mixing instructions. **EcoGuard** contains small amounts of urea to enhance the rate of spore germination. At the standard application rate (20 fl. oz./1000 ft<sup>2</sup>), 0.14 lb. Nitrogen is applied per 1000 ft<sup>2</sup>. For best results, use the diluted product within 8 hours of mixing. Do not store diluted product for more than 24 hours.

Disease	Application Rate <sup>2</sup> (fl. oz. /1000 ft <sup>2</sup> )	Frequency of Application <sup>1</sup>		
		Pre-disease/ Low Pressure	Moderate Pressure	High Pressure
Dollar Spot	20	7-14 days	7-14 days	3-7 days
Anthracnose	20	7-14 days	7-14 days	3-7 days
Other Listed Diseases	20	7-14 days	7-14 days	3-7 days

<sup>1</sup>Note Nitrogen contribution per application: at application rate (20 fl. oz./1000 ft<sup>2</sup>), 0.14 lb. nitrogen is applied per 1000 ft<sup>2</sup>.

<sup>2</sup>Mixing instructions (ex. when applying in 2 gal/1000 ft<sup>2</sup>). Mix 8 gallons of **EcoGuard** in 100 gallons of water.

### Tank Mixing:

Due to the nature of this microbial product (contains live spores), tank mixing of **EcoGuard** with solutions containing strong acids, bases, oxidizing agents, or solvents should be avoided.

Do not apply this product through any type of irrigation system.

See Side Panel for Storage & Disposal directions.

## PRECAUTIONARY STATEMENTS: Hazards To Humans and Domestic Animals - CAUTION:

### Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

- Long-sleeved shirt and long-pants
- Shoes plus socks
- For handling activities use a non-powered air purifying NIOSH approved respirator with any N, P, R, or HE filter.

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

### 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.

**Environmental Hazards:** Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark. Do not contaminate water when disposing of residual product or equipment washwaters. Do not use this product on plants intended for food or feed. Do not feed treated plants to livestock or domestic animals.

## STORAGE AND DISPOSAL:

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

**Pesticide Storage:** EcoGuard is a stable suspension of microbial spores. For best results, store within the recommended storage temperature range of 40° F - 95° F (4° C - 35° C). Avoid longer-term storage at warmer temperatures or in direct sunlight. This product can also be stored at lower temperatures (<40° F) for up to 2 weeks as freezing will not affect its usefulness. Store product in original container in a secure location.

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

**Container Disposal:** Triple-rinse (or equivalent) then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Prompt Notice of Claim:** To the extent permitted by state law, Novozymes Biologicals must have prompt notice as soon as Buyer or User has reason to believe they may have a claim (not to exceed twenty-one days from date of application) so that an inspection of the affected property and growing crops may be made. Unless Buyer and User(s) shall promptly notify Novozymes Biologicals of any claims, the manufacturer does not intend to pay any damages.