PH-22 10182 -408 Please read instructions on reverse before completing form.	PM 22 Form Approved. OMB No. 2070-0360. Approval expires 05-31-98
United States Environmental Protection Ac Weshington, DC 20460	gency Amendment OPP Identifier Number
Application for	r Pesticide - Section I
1. Company/Product Number 10182–408	2. EPA Product Manager C. Giles-Parker Restricted
4. Company/Product (Name) Heritage Eungicide	PM# 25/22
5. Name and Address of Applicant (Include ZIP Code) Zeneca Inc. PO Box 15458 Wilmington DE 19850-5458	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No.
Check if this is a new address	Product Name
	ection - II
Amendment - Explain below.     Resubmission in response to Agency letter dated     X     Notification - Explain below.	Final printed labels in response to Agency latter dated "Me Too" Application. Other - Explain below.
Notification of new 1 6z container	NOTIFICATION APR 2 4 1997
	ection - III
Material This Product Will Be Packaged In: Child Recistant Packaging Unit Packaging Wat	ter Soluble Packaging 2. Type of Container
Yes Yes   X No   X No   If "Yes" No. per	Yes Metal   No Metal   Yes" No. per kage wgt   container Other (Specify)
3. Location of Net Contents Information 4. Size(s) Retail Con	On Label
Label X Container 1 OZ   6. Manner in Which Label is Affixed to Product Lithograph Paper glund	On Labeling accompanying product       v     Öther     Böcklet in plastice hänger
Stenciled	······································
	ction - IV
1. Contact Point (Complete items directly below for identification of in       Name       Tina Haw	dividual to be contacted, if necessary, to process this application.)     Telephone No. (Include Area Code)     Regulatory Assistant     312-885-108
Certification I certify that the statements I have made on this form and all atta I acknowledge that any knowingly false or misleading statement both under applicable law.	6. Date Application • Schments thereto are true, accurate and complete.
2. Signature Michille a. Schulzmal	
4. Typed Name Michele A. Schulz 5. Date	4/16/97
EPA Form 8570-1 (Rev. 8-34) Provious editions are obsolete.	White - EPA File Copy (original) Yellow - Applicant C

# **BOTTLE ART**

# **HERITAGE™ FUNGICIDE**

ACTIVE INGREDIENT:

50.0% .. <u>50.0%</u> 100.0%

\*IUPAC Contains 0.5 lb ai/lb product

# **KEEP OUT OF REACH OF CHILDREN**

Refer to the attached booklet for Precautionary Statements, Statement of Practical Treatment and Directions For Use (including Storage and Disposal directions)."

ZENECA Professional Products ZENECA Inc. Wilmington, Delaware 19850-5458

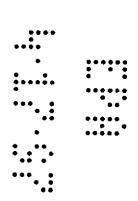
EPA REG. NO. 10182-408 EPA EST. NO. 40849-GA-1

NET CONTENTS: 1 OZ. (28.35 g)

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# NOTIFICATION APR 2 4 1997

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#### FOR USE TO CONTROL CERTAIN DISEASES ON TURF



#### 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 should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of ZENECA or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold ZENECA and Seller harmless for any claims relating to such factors.

ZENECA 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 abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or ZENECA, and Buyer and User assume the risk of any such use. ZENECA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WAR-RANTY EXCEPT AS STATED ABOVE.

In no event shall ZENECA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. THE EXCLUSIVE REME-DY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILI-TY OF ZENECA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLI-GENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULT-ING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ZENECA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

ZENECA and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of ZENECA.

#### **ACTIVE INGREDIENT:**

\*IUPAC

Contains 0.5 lb ai/lb product EPA REG. NO. 10182-408

## KEEP OUT OF REACH OF CHILDREN CAUTION

#### STATEMENT OF PRACTICAL TREATMENT

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

IF IN EYES: Flush eyes with plenty of water. Call physician if irritation persists.

FOR 24-HOUR EMERGENCY MEDICAL ASSIS-TANCE, CALL 1-800-F-A-S-T-M-E-D (327-8633). FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC, 1-800-424-9300.

#### **PRECAUTIONARY STATEMENTS**

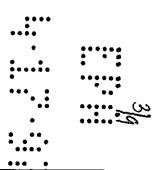
#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

HARMFUL IF ABSORBED THROUGH SKIN. CAUSES MODERATE EYE IRRITATION. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

#### PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- · Shoes plus socks



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#### 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**

Degradates of this chemical have properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

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 equipment washwaters.

Notify state and/or Federal authorities and Zeneca Inc. immediately if you observe any adverse environmental effects due to use of this product.

#### **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 PRE-CAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY OR POOR DISEASE CONTROL.

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

#### AGRICULTURAL USES: Commercial Turf Farms

#### 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, such as plants, soil or water is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

#### **NON-AGRICULTURAL USES: Golf Courses**

#### **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. The area being treated must be vacated by unprotected persons.

Do not treat areas while unprotected humans or domestic animals are present in the treatment areas. Because certain states may require more restrictive reentry intervals, consult your State Department of Agriculture for further information.

Do not allow entry into treatment area until area that was treated with HERITAGE<sup>™</sup> Fungicide is dry.

#### **GENERAL INFORMATION**

HERITAGE<sup>™</sup> Fungicide is a broad spectrum, preventative fungicide with systemic and curative properties recommended for the control of many important plant diseases on turf. HERITAGE<sup>™</sup> Fungicide will be applied as a foliar spray in alternating spray programs or in tank mixes with other registered, turf protection products. All applications should be made according to the use directions that follow.

Do not apply HERITAGE<sup>™</sup> Fungicide through any type of irrigation system.

Do not graze or feed clippings from treated areas to animals.

#### INTEGRATED PEST (DISEASE) MANAGEMENT

HERITAGE<sup>™</sup> Fungicide should be integrated into an overall disease and pest management strategy whenever the use of a fungicide is required. Practices known to reduce disease development should be followed. The SPECIFIC USE DIRECTIONS section in this label identifies specific IPM recommendations to reduce disease development. Consult your local agricultural and turf authorities for additional IPM strategies established for your area.

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#### **GENERAL INFORMATION (Continued)**

#### RESISTANCE MANAGEMENT

Some plant pathogens are known to develop resistance to products used repeatedly for disease control. In order to maintain HERITAGE™ Fungicide as a valuable disease control tool and because the development of resistance cannot be predicted, the SPE-CIFIC USE DIRECTIONS section of this label provides use directions to implement resistance management strategies. Consult your local or state agricultural turf authorities for resistance management strategies that are complimentary to those in this label. HERITAGE™ Fungicide is not cross resistant to other classes of fungicides which have different modes of action.

#### MIXING

HERITAGE<sup>™</sup> Fungicide is intended for dilution with water for spray application and may be used in all types of spray equipment commonly used for making ground applications to turf. Partially fill the spray tank with clean water and begin agitation. Add the specified amount of HERITAGE<sup>™</sup> Fungicide to the tank followed by an adjuvant if required. Finish filling the tank to the desired volume to obtain the proper spray concentration. Maintain agitation throughout the spraying operation. Do not allow spray mixture to stand overnight or for prolonged periods. Make up only the amount of spray required for immediate use.

#### GENERAL INFORMATION (Continued)

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#### TANK MIXES/COMPATIBILITY

HERITAGE<sup>™</sup> Funcicide is compatible with many commonly used fungicides, liquid fertilizers, herbicides, insecticides and biological control products registered for use on turf. If tank mixes are desired, observe all directions, precautions, and limitations on labeling of all products used. Consult compatibility charts or your local or state agricultural or turf authorities for compatibility information. If physical compatibility is unknown, the following procedure should be followed: Pour the recommended proportions of the products into a suitable container of water, mix thoroughly and allow to stand at least twenty (20) minutes. If the combination remains mixed or can be re-mixed readily, the mixture is considered physically compatible. Products should be added to the spray tank in the following order: the recommended rate of HERITAGE<sup>™</sup> Fungicide, other WG or dry flowable formulations, wettable powders, and flowable (aqueous suspensions) products.

# SPECIFIC USE DIRECTIONS

TURF:

HERITAGE<sup>™</sup> Fungicide is recommended for control of brown patch, Pythium blight, anthracnose, melting out, leafspot, necrotic ring spot, red thread, summer patch, gray snow mold (Typhula blight), pink snow mold, spring dead spot, zoysia patch, Fusarium patch and take-all patch on golf courses and commercial turf farms.

Integrated Pest (Disease) Management: Sound turf management resulting in healthy, vigorous turf is the foundation of a good IPM program. Cultural practices such as proper choice of turf variety, nutrient management, proper cutting height, thatch management, and proper watering, drainage, and moisture stress management should be integrated with the use of fungicides to increase turf vigor and reduce the susceptibility to disease. Immunoassay detection kits and extension service diagnostic services can assist in the early and accurate identification of causal organisms and corresponding selection of the proper fungicide when required. Resistance Management: Some turf disease pathogens are known to have developed resistance to products used repeatedly for their control. HER-ITAGE<sup>™</sup> Fungicide should be applied in a tank mix or alternation program with other registered fungicides that have a different mode of action and to which pathogen resistance has not developed. Do not apply more than two sequential HERITAGE<sup>™</sup> Fungicide applications for *Pythium* spp. control. Do not apply more than four sequential applications of HERITAGE<sup>™</sup> Fungicide for all other diseases.

Application Directions: Mix HERITAGE<sup>™</sup> Fungicide with the required amount of water and apply as a dilute spray application in 2-4 gallons of water per 1000 square feet (87-174 gallons per acre). Repeat applications at specified intervals for as long as required. Use the shorter specified application interval and/or use the higher specified rate when prolonged favorable disease conditions exist. For spot treatments, use 0.2 oz HERITAGE<sup>™</sup> Fungicide per 1 to 2 gallons of water. Do not apply more than 10 lbs product/acre/year (3.7 oz product/ 1000 square feet/year).

**Dollar Spot:** HERITAGE<sup>™</sup> Fungicide does not control dollar spot. HERITAGE<sup>™</sup> Fungicide is compatible in tank mixes with many other fungicides that control dollar spot. Always tank mix HERITAGE<sup>™</sup> Fungicide with another fungicide that controls dollar spot when this disease is present. Follow directions under TANK MIXES/COMPATIBILITY above.

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## **DIRECTIONS FOR APPLICATION FOR TURF DISEASES (Continued)**

Target Diseases	Use Rate (oz product per 1000 sq ft)	Application Interval (days)	Remarks*
Pink Snow Mold (Microdochium nivale)	0.4	14	Make two applications spaced 14 days apart. Tank mixing with another snow mold fungicide(s) may enhance control under severe disease pressure. Apply in late fall before snow cover. Do not apply on top of snow.
Pythium Blight ( <i>Pythium</i> spp.)	0.4	10-14	Begin applications before disease is present. During periods of prolonged favorable conditions, treat on the 10 day application interval. For use on newly seeded as well as established turf.

### **DIRECTIONS FOR APPLICATION FOR TURF DISEASES (Continued)**

Target Diseases	Use Rate (oz product per 1000 sq ft)	Application Interval (days)	Remarks*
Gray Snow Mold <i>(Typhula</i> spp.)	0.4	14	Make two applications spaced 14 days apart. Tank mixing with another snow mold fungicide(s) may enhance control under severe disease pres- sure. Apply in late fall before snow cover. Do not apply on top of snow.
Leafspot (Drechslera spp. and/or <i>Bipolaris</i> spp.)	0.2-0.4	14-21	Apply when conditions are favorable for disease development.
Melting Out (Drechslera spp. and/or Bipolaris spp.)	0.2-0.4	14-21	Apply when conditions are favorable for disease development.
Necrotic Ring Spot (Leptosphaeria korrae)	0.4	14-28	Apply when conditions are favorable for disease development.

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## **DIRECTIONS FOR APPLICATION FOR TURF DISEASES**

Target Diseases	Use Rate (oz product per 1000 sq ft)	Application Interval (days)	Remarks*
Anthracnose (Colletotrichum graminicola)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Brown Patch (Rhizoctonia solani)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Cool Weather Brown Patch (Rhizoctonia cerealis)	0.4	28	Make one or two applications in late fall before snow cover, or when conditions are favorable for disease development. Do not apply on top of snow.
Fusarium Patch (Microdochium nivale)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.

#### **HERITAGE™** Fungicide Rate Conversion Chart for Turf

Ounces Product Per 1000 Sq. Ft	Ounces A.I. Per 1000 Sq. Ft	Ounces Product Per Acre	Pounds Product Per Acre
0.20	0.10	8.7	0.5
0.40	0.20	17.4	1.1

# Amount of HERITAGE™ Fungicide to Mix 100 Gallons for Turf Applications Spray Volume (gallons/1000 square feet)

HERITAGE Fungicide Use Rate	2.0 gals	3.0 gais	4.0 gais
0.2 oz	10 oz	6.7 oz	5 oz
0.4 oz	20 oz	13.3 oz	10 oz

DIRECTIONS FOR APPLICATION FOR TURF DISEASES (Continued)			
Target Diseases	Use Rate (oz product per 1000 sq ft)	Application Interval (days)	Remarks*
Summer Patch <i>(Magnaporthe poae)</i>	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Take-all patch (Gaeumannomyces graminis)	0.4	28	Make two applications, 28 days apart in the spring and two applications 28 days apart in the fall.
Yellow Patch (Rhizoctonia cerealis)	0.4	28	Make one or two applications in late fall before snow cover, or when con- ditions are favorable for disease devel- opment. Do not apply on top of snow.
Zoysia Patch (Rhizoctonia solani and/or Gaeumannomyces incrustana)	0.4	28	Make one or two applications in the fall of the year, or when conditions are favorable for disease development. Do not apply on top of snow.

\*Do not apply more than two sequential applications of HERITAGE<sup>™</sup> Fungicide for control of *Pythium* spp. For all other diseases, do not apply more than four sequential applications of HERITAGE<sup>™</sup> Fungicide.

Target Diseases	Use Rate (oz product per 1000 sq ft)	Application Interval (days)	Remarks*
Pythium Root Rot <i>(Pythium</i> spp.)	0.4	10-14	Begin applications before disease is present. During periods of prolonged favorable conditions, treat on the 10 day application interval. For use on newly seeded as well as established turf.
Red Thread (Laetisaria fuciformis)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Rhizoctonia Large Patch (Rhizoctonia solani)	0.4	28	Make one or two applications in late fall before snow cover, or when con- ditions are favorable for disease devel- opment. Do not apply on top of snow.
Spring Dead Spot (Leptosphaeria korrae) or (Gaeumannomyces graminis)	0.4	28	Make one or two applications in late fall before snow cover, or when con- ditions are favorable for disease devel- opment. Do not apply on top of snow.

#### **STORAGE AND DISPOSAL**

**PROHIBITIONS:** Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

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

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

#### CONTAINER DISPOSAL:

Plastic Containers: Triple rinse (or equivalent); then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or alternatives allowed by State and local authorities.

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# ZENECA Professional Products

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ZENECA Inc. Wilmington, Delaware 19850-5468

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