



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg.
Number:

10182-
408

Date of Issuance:

FEB 7 1997

NOTICE OF PESTICIDE:

☒ Registration
Reregistration

(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

Heritage Fungicide

Name and Address of Registrant (include ZIP Code):

Zeneca Ag Products
1800 Concord Pike
P.O. Box 15458
Wilmington, Delaware 19850-5458

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is registered in accordance with FIFRA sec. 3(c)(7)(C) provided that you:

1. Make the change to the label that is listed below before you release the product for shipment:
 - a. Revise the EPA Registration Number to read, "EPA Reg. No. 10182-408".
2. Satisfy the requirements listed below by December 31, 1997.
 - a. Product Chemistry
 - i. Storage Stability (Guideline Reference Number 63-17). A one-year interim report has been received.
 - b. Toxicology
 - i. Acute Oral Neurotoxicity - Rat (Guideline Reference Number 81-8). Data intended to upgrade this study have been submitted by Zeneca Ag Products.
 - ii. Subchronic Neurotoxicity Feeding - Rat (Guideline Reference Number 82-7). Data intended to upgrade this study have been submitted by Zeneca Ag Products.

Signature of Approving Official:

/s/

Date:

FEB 7 1997

- c. Ecological Effects
 - i. Avian Reproduction (Bobwhite) (Chronic, TGAI) (Guideline Reference Number 71-4). The first such study to be submitted was found to be invalid and must be replaced.
- d. Environmental Fate
 - i. Photodegradation in Water (Guideline Reference Number 161-2). Zeneca Ag Products has submitted data intended to upgrade this study.
 - ii. Aerobic Soil Metabolism (Guideline Reference Number 162-1). Zeneca Ag Products has submitted data intended to upgrade this study.
 - iii. Terrestrial Field Dissipation (Guideline Reference Number 164-1). Zeneca Ag Products has submitted data intended to upgrade this study.
 - iv. Droplet Size Spectrum (Guideline Reference Number 201-1). This requirement can be fulfilled by submission of generic data generated by the Spray Drift Task Force.
 - v. Drift Field Evaluation (Guideline Reference Number 202-1). This requirement can be fulfilled by submission of generic data generated by the Spray Drift Task Force.
- 3. Submit one copy of your final printed label before you release this product for shipment.
- 4. Comment: The alternate brand name "ICIA5504 Fungicide" is acceptable.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA Section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records. If you have any questions about this letter, please contact John Bazuin at (703)305-7381.

Sincerely yours,

Cynthia L. Giles-Parker
Product Manager (22)
Fungicide-Herbicide Branch
Registration Division (7505C)

Attachments: Product label, stamped "Accepted with Comments"

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HERITAGE™ Fungicide

For use to control certain diseases on turf.

ACTIVE INGREDIENT:

azoxystrobin: (methyl (E)-2-{2-[6-(2-cyanophenoxy)
pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate* *50%

INERT INGREDIENTS: 50%

TOTAL 100%

Contains ½ lb ai/lb product

*IUPAC

EPA REG NO. 10182-
EPA EST. NO. 10182-NB-1, 70489-GBR-001

NET WT. 1 lb. (.4 kg)

KEEP OUT OF REACH OF CHILDREN

CAUTION

**SEE INSIDE FOR STATEMENT OF PRACTICAL TREATMENT
AND PRECAUTIONARY STATEMENTS**

Manufactured in the UK for distribution by:

Zeneca Professional Products
Zeneca Inc.
Wilmington DE 19850-5458

**ACCEPTED
with COMMENTS
In EPA Letter Dated**

FEB 7 1997

**Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.**

10182-408

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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 WARRANTY 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 REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ZENECA 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 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.

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 ASSISTANCE, 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

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.
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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 PRECAUTIONS 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™ Fungicide is dry.

GENERAL INFORMATION

HERITAGE™ Fungicide is a broad spectrum, protectant fungicide with systemic properties recommended for the control of many important plant diseases on turf. HERITAGE™ Fungicide will be applied as a foliar spray in alternating spray programs or in tank mixes with other registered, crop protection products. All applications should be made according to the use directions that follow. Do not apply HERITAGE™ Fungicide through any type of irrigation system. Do not graze or feed clippings from treated areas to animals.

INTEGRATED PEST (DISEASE) MANAGEMENT

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

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 SPECIFIC USE DIRECTIONS section of this label provides use directions to implement resistance management strategies for each crop. Consult your local or state agricultural authorities for resistant management strategies that are complimentary to those in this label. HERITAGE™ Fungicide is not cross resistant to other classes of fungicides which have

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different modes of action.

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MIXING

HERITAGE™ 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™ 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.

TANK MIXES/COMPATIBILITY

HERITAGE™ Fungicide 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 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™ Fungicide, other WG or dry flowable formulations, wettable powders, and flowable (aqueous suspensions) products.

TURF:

HERITAGE™ Fungicide is recommended for control of brown patch, Pythium blight (including metalaxyl resistant populations), anthracnose, melting out, leafspot, necrotic ring spot, red thread, summer patch, gray snow mold (Typhula blight), pink snow mold, gray leaf spot, 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

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proper fungicide when required.

Resistance Management: Some turf disease pathogens are known to have developed resistance to products used repeatedly for their control. HERITAGE™ 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™ Fungicide applications for Pythium spp. control. Do not apply more than four sequential applications of HERITAGE™ Fungicide for all other diseases.

Application Directions: Mix HERITAGE™ 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™ 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™ Fungicide does not control dollar spot. HERITAGE™ Fungicide is compatible in tank mixes with many other fungicides that control dollar spot. Always tank mix HERITAGE™ 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

Target Diseases	Use Rate (oz product per 1000 sq ft)	Application Interval (days)	Remarks*
Anthracnose (<i>Colletotrichum graminicola</i>)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Brown Patch (<i>Rhizoctonia solani</i>)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Cool Weather Brown Patch (<i>Rhizoctonia cerealis</i>)	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 (<i>Microdochium nivale</i>)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Gray Snow Mold (<i>Typhula</i> spp.)	0.4	14	Make two applications spaced 14 days apart. Tankmixing 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.
Leafspot (<i>Drechslera</i> spp. and/or <i>Bipolaris</i> spp.)	0.2-0.4	14-21	Apply when conditions are favorable for disease development.
Melting Out (<i>Drechslera</i> spp. and/or <i>Bipolaris</i> spp.)	0.2-0.4	14-21	Apply when conditions are favorable for disease development
Necrotic Ring Spot (<i>Leptosphaeria korrae</i>)	0.4	14-28	Apply when conditions are favorable for disease development.

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Target Diseases	Use Rate (oz product per 1000 sq ft)	Application Interval (days)	Remarks*
Pink Snow Mold (<i>Microdochium nivale</i>)	0.4	14	Make two applications spaced 14 days apart. Tankmixing 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.
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 (<i>Laetisaria fuciformis</i>)	0.4	14-28	Apply when conditions are favorable for disease development.
Rhizoctonia Large Patch (<i>Rhizoctonia solani</i>)	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.
Spring Dead Spot (<i>Leptosphaeria korrae</i>) or (<i>Gaeumannomyces graminis</i>)	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.
Summer Patch (<i>Magnaporthe poae</i>)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.

Target Diseases	Use Rate (oz product per 1000 sq ft)	Application Interval (days)	Remarks*
Take-all patch (<i>Gaeumannomyces graminis</i>)	0.4	28	Make two applications, 28 days apart in the spring and two applications 28 days apart in the fall.
Yellow Patch (<i>Rhizoctonia cerealis</i>)	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.
Zoysia Patch (<i>Rhizoctonia solani</i> and/or <i>Gaeumannomyces incrustana</i>)	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.

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

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
0.30	0.15	13.1	0.8
0.40	0.20	17.4	1.1

Amount of HERITAGE™ Fungicide to Mix 100 Gallons for Turf Applications

HERITAGE™ Fungicide Use Rate	Spray Volume (gallons/1000 square feet)		
	2.0 gals	3.0 gals	4.0 gals
0.2 oz	10 oz	6.7 oz	5 oz
0.4 oz	20 oz	13.3 oz	10 oz

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.

Paper/Box Container: Do not reuse container. Completely empty container into application equipment. Then dispose of empty container in sanitary landfill, or alternatives allowed by State and local authorities.