



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

JAN 31 1994

Nancy L. Bockrath  
ZENECA INC.  
ZENECA AG PRODUCTS  
New Murphy Road & Concord Pike, Box 751  
Wilmington, DE 19897

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Subject: Label Amendment Submission of 08/19/93 in Response to PR Notice 93-7  
EPA Reg. No. 10182-243  
DEVIRINOL 2-G ORNAMENTAL SELECTIVE HERBICIDE

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

**WHAT THIS ACCEPTANCE MEANS:**

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

**WHAT YOU NEED TO DO NEXT:**

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling
- AND
- WITHIN one year from date of this acceptance.



Recycled/Recyclable  
Printed with Soy-Cerata ink on paper that  
contains at least 50% recycled fiber

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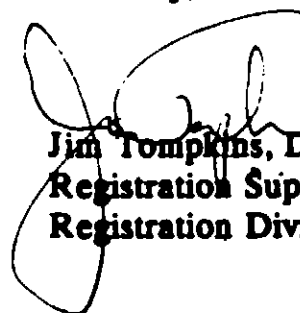
Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)  
Office of Pesticide Programs (7505C)  
U.S. Environmental Protection Agency  
401 M Street, SW  
Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL)  
Office of Pesticide Programs  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

Sincerely,



Jim Tompkins, Deputy Chief  
Registration Support Branch  
Registration Division (7505W)

Attachment

**DEVIRINOL® 2-G ORNAMENTAL  
Selective Herbicide**

**A Preemergence Herbicide for Weed Control in Home Flower Gardens and Landscape Plantings. Use in Deciduous and Evergreen Trees and Shrubs, Ground Covers, Perennial Flowers, Fruit and Nut Crops, Container Grown Plants, and Turfgrass**

**ACTIVE INGREDIENT:**

<i>N,N</i> -diethyl-2-(1-naphthalenyloxy)-propionamide .....	2.0%
<b>INERT INGREDIENTS:</b> .....	<u>98.0%</u>
<b>TOTAL</b> .....	<b>100.0%</b>

Contains 2 Pounds of Active Ingredient per 100 Pounds

EPA Reg. No.: 10182-243  
EPA Est. No.:

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

Made in U.S.A.  
ZENECA Ag Products  
ZENECA Inc.  
Wilmington, DE 19897

ACCEPTED  
with COMMENTS  
In EPA Letter Dated  
JAN 31 1994  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
10182-243

### STATEMENT OF PRACTICAL TREATMENT

If an adverse reaction occurs after exposure, promptly initiate the recommended procedures below. If further treatment is required, seek medical attention.

**IN CASE OF CONTACT:** Flush eyes and skin with plenty of water for several minutes. Get medical attention if eye or skin irritation occurs.

**IF SWALLOWED:** Immediately give several glasses of water and induce vomiting by placing a finger on the back of the victim's tongue. Give fluids until vomitus is clear. Do not induce vomiting or give anything by mouth to an unconscious or convulsing person.

**IF INHALED:** Remove to fresh air. Seek medical attention if respiratory irritation occurs or if breathing becomes difficult.

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**FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE CALL 1-800-F-A-S-T-M-E-D  
(1-800-327-8633)**

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident call CHEMTREC  
1-800-424-9300.**

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For other product information, contact your local ICI Americas Distributor or see Material Safety Data Sheet

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

##### CAUTION

**MAY BE HARMFUL IF SWALLOWED.** Do not breathe dust. Avoid contact with skin, eyes and clothing. ~~Wash thoroughly with soap and water after use.~~ Avoid contamination with food and feed.

##### Personal Protective Equipment

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Shoes plus socks.

Follow 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.

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.

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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.
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#### **ENVIRONMENTAL HAZARDS**

Do not apply directly to lakes, streams, and/or ponds. Do not contaminate irrigation water or water used for domestic purposes.

#### **GENERAL PRECAUTIONS**

- Read all instructions before using.
- Use only for recommended purposes and at recommended rates.
- Do not overdose.

**DIRECTIONS FOR USE**

**WHAT THIS PRODUCT DOES**

DEVIRINOL 2-G ORNAMENTAL controls certain annual grassy and broadleaf weeds as they germinate. It does not control established weeds. The weeds controlled are listed below:

<b>WEEDS CONTROLLED BY DEVIRINOL 2-G ORNAMENTAL</b>	
<b>ANNUAL GRASSES:</b>	
Barnyardgrass, Junglerice	<i>Echinochloa</i> spp.
Wild Barley	<i>Hordeum leporinum</i>
Annual Bluegrass	<i>Poa annua</i>
Bromes	<i>Bromus</i>
Cheatgrass	<i>B. secalinus</i>
Downy Brome	<i>B. tectorum</i>
Ripgut Brome	<i>B. rigidus</i>
Soft Chess	<i>B. mollis</i>
Large (Hairy) Crabgrass	<i>Digitaria sanguinalis</i>
Smooth Crabgrass	<i>Digitaria ischaemum</i>
Southwestern Cupgrass	<i>Eriochloa gracilis</i>
Foxtails	<i>Setaria</i>
Bristly Foxtail	<i>S. verticilla</i>
Giant Foxtail	<i>S. faberi</i>
Green Foxtail	<i>S. viridis</i>
Yellow Foxtail	<i>S. lutescens</i>
Goosegrass	<i>Eleusine indica</i>
Seedling Johnsongrass	<i>Sorghum halepense</i>
Wild Oats	<i>Avena fatua</i>

<b>WEEDS CONTROLLED BY DEVRINOL 2-G ORNAMENTAL</b>	
<b>Panicums</b>	<i>Panicum</i>
Guineagrass	<i>P. Paximum</i>
Fall Panicum	<i>P. dichotomiflorum</i>
Texas Panicum	<i>P. texanum</i>
Witchgrass	<i>P. capillare</i>
Italian Ryegrass	<i>Lolium multiflorum</i>
Sandbur	<i>Cenchrus spp.</i>
Red Sprangletop	<i>Leptochloa filiformis</i>
Stinkgrass	<i>Eragrostis cilianensis</i>
<b>ANNUAL BROADLEAF WEEDS:</b>	
Carpetweed	<i>Mollugo verticillata</i>
Common Chickweed	<i>Stellaria media</i>
Coast Fiddleneck	<i>Amsinckia intermedia</i>
Filaree	<i>Erodium spp.</i>
Groundsel	<i>Senecio spp.</i>
Prostrate Knotweed	<i>Polygonum aviculare</i>
Lambsquarters	<i>Chenopodium album</i>
Prickly Lettuce	<i>Lactuca scariola</i>
Little Mallow*	<i>Malva parviflora</i>
Redroot Pigweed	<i>Amaranthus retroflexus</i>
Pineappleweed	<i>Matricaria matricarioides</i>
Common Purslane	<i>Portulaca oleracea</i>
Horse Purslane	<i>Trianthema portulacastrum</i>
Common Ragweed**	<i>Ambrosia artemisiifolia</i>
Annual Sowthistle	<i>Sonchus oleraceus</i>

\*From seed  
 \*\*Suppression

**WHERE TO USE THIS PRODUCT**

DEVRINOL 2-G Ornamental can be applied over small ornamental plants or around larger plants in rose gardens, container plantings, ornamental landscapes and ground covers including dichondra.

Use DEVRINOL 2-G Ornamental for weed control in the following plants:

**Deciduous and Evergreen Trees**

Acer	Eucalyptus	Picea
Ash	Ficus	Pin Oak
Birch	Fir	Pinus
Black Walnut	Gleditsia	Pittosporum
Cedar	Hemlock	Podocarpus
Citrus	Japanese Larch	Populus
Crataegus	Laburnum	Prunus
Cypress	Malus	Pears
Dogwood	Olive (Olea)	Pistachios
Douglas Fir	Palm (Washingtonia robusta)	

**Deciduous and Evergreen Shrubs**

Abelia	Forsythia	Oleander
Asparagus (Sprengeri)	Gardenia	Osmanthus
Aucuba	Heather (Calluna)	Photinia
Azalea	Hibiscus	Pittosporum
Bottlebrush	Honeysuckle (Lonicera)	Podocarpus
Bougainvillea	Hypericum	Pyracantha
Buxus	Ilex	Raphiolepis
Camellia	Juniperus	Rhododendron
Cotoneaster	Leucothe	Rosa
Crepe Myrtle	Ligustrum	Star Jasmine
Dogwood	Nandina	Taxus
Euonymus	Natal Plum	Viburnum
		Xylosema

**Ground Covers**

Ajuga	Hedera	Liriope
Carpobrotus	Hypericum	Osteosperma
Delosperma	Iceplant	Pachyzandra
Dichondra	Ivy	Sedum
Erysimum	Lantana	Vinca
Ganzania		



**CONTAINER STOCK**

Abelia	Eucalyptus	Pachysandra
Agapanthus	Euonymus	Palm (Washingtonia robusta)
Ageratum	Fir	Photinia
Asparagus	Forsythia	Pinus spp.
Azalea	Gardenia	Pittosporum
Bottlebrush	Geranium	Podocarpus
Bougainvillea	Heather	Pyracantha
Buxus	Hedera	Raphiolepis
Camellia	Hibiscus	Rhododendron
Cedar	Ilex	Rosa
Cotoneaster	Juniperus	Sedum
Crepe Myrtle	Leucothea	Star Jasmine
Cypress	Ligustrum	Thuja
Dogwood	Liriope	Vinca
Douglas Fir	Nandina	Xylosema

**Flowers**

African Daisy	Chrysanthemum	Narcissus
Aster	Dahlia	Petunia
Bird of Paradise	Daisy	Plantain Lily (Hosta)
	Geranium	Zinnia
	Gladiolus	

**Fruit and Nuts**

Almond	Lemon	Pistachio
Apple	Nectarine	Plum
Apricot	Orange	Prune
Cherry	Peach	Tangerine
Filbert	Pear	Walnut
Grape	Pecan	

Strawberry: (Applications should be delayed until the desired number of daughter plants have become established. Do not apply from bloom through harvest.)

**WHEN TO USE THIS PRODUCT**

DEVIRINOL 2-G ORNAMENTAL should be used before weeds germinate. It will not control established weeds.

Application can be made anytime of the year to weed-free soil. Fall and winter applications will provide excellent weed control the following spring and summer.

In containers, apply after setting and watering the plants.

## HOW TO USE THIS PRODUCT

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Apply this product as specified on this label.

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.

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## 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 protection equipment (PPE), 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.

Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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.

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DEVIRINOL 2-G ORNAMENTAL should be spread evenly on the soil surface using a shaker can or granular herbicide applicator.

Do not apply when weather conditions favor drift from areas treated.

When weed infestation is heavy or when broadleaves are the primary weeds, use one pound on 145 square feet (6.9 lbs./1,000 sq. ft.). For annual grassy weeds or when weed infestation is light, use one pound on 218 square feet (4.6 lbs./1,000 sq.ft.).

DEVIRINOL 2-G ORNAMENTAL should be incorporated evenly into the soil using a hand cultivator to a depth of 1-2 inches or irrigation or natural moisture (rainfall or snow) (1-2 inches within 2-3 days) for optimum results.

For weed control in dichondra, apply at the time of seeding or to establish dichondra including dichondra sod. Irrigate with a minimum of one inch of water.

**RECOMMENDATIONS: TURF GRASS  
(For Use on Warm Season Grasses Only)**

DEVIRINOL 2-G ORNAMENTAL is recommended for annual bluegrass, crabgrass and goosegrass control in the following established turf grasses: bahia, bermudagrass, centipede, St. Augustine and fescue.

**TIMING OF APPLICATION:**

For control of crabgrass and goosegrass, apply DEVIRINOL 2-G ORNAMENTAL at the recommended rate. Application should be made 2-3 weeks prior to weed emergence. DEVIRINOL 2-G ORNAMENTAL should be applied with a gravity flow drop spreader or a cyclone type spreader. A more uniform application can be made by spreading half the required amount over the area to be treated, then applying the remainder at right angles.

DEVIRINOL 2-G ORNAMENTAL requires a minimum of one half (1/2) inch of rainfall or irrigation 2-3 days after application for adequate control. If irrigation methods are not available, the timing of the application of DEVIRINOL 2-G ORNAMENTAL should be moved back several weeks to allow for some rainfall between application and weed germination.

**RATES OF APPLICATION:**

**For Crabgrass Control:** Apply 100 to 150 lbs. of DEVIRINOL 2-G ORNAMENTAL uniformly per acre (2.52-3.38 lbs per 1,000 sq. ft.). Use the higher rate when applying before January 1 (not applicable north of South Carolina or when weed infestation is expected to be heavy).

\*Where a rate range is given, use the higher rate when weed infestation is expected to be heavy.

**For Goosegrass Control:** Apply 100 to 150 lbs. of DEVIRINOL 2-G ORNAMENTAL per acre (2.25-3.38 lbs. per 1,000 sq. ft.). Goosegrass usually starts to germinate 6 to 7 weeks after the start of crabgrass germination.

**Split Application for Crabgrass and Goosegrass Control:** When both of these weeds are to be controlled, apply 100 lbs. of DEVIRINOL 2-G ORNAMENTAL spread uniformly per acre (2.25 lbs. per 1,000 sq. ft.) for crabgrass and another 100 lbs. of DEVIRINOL 2-G ORNAMENTAL per acre for goosegrass. Apply 8-10 weeks apart. Timing should be adjusted to the germination of weeds in your area. Split applications give longer and better weed control than one application.

**For Annual Bluegrass (Poa Annua) Control:** Annual bluegrass is a winter annual in most of the warm season turf regions; therefore, application of DEVIRINOL 2-G ORNAMENTAL should be made in the fall before the annual bluegrass germinates. Apply 100-150 lbs. of DEVIRINOL 2-G ORNAMENTAL per acre (2.25-3.38 lbs. per 1,000 sq. ft.).

**Reseeding:** Do not reseed or overseed within six months after application.

### STORAGE AND DISPOSAL

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

**STORAGE:** Keep container closed when not in use. Store in a cool dry place. Do not store near seeds, fertilizer or food stuffs.

**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:** Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities by burning. If burned, stay out of smoke.

**NOTICE TO BUYER AND SELLER:** Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label, when used in accordance with directions under normal conditions of use. 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 Seller and Buyer and User assume the risk of any such use. SELLER DISCLAIMS ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY. SELLER SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT AND SELLER'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE.