STATE OF HAWAII
Department of Agriculture
ACCEPTED
LICENSE NO. 8026.16
Disc.

Devrinol® 50-DF Ornamental

Selective Herbicide

A Preemergence Herbicide for use on Container-grown Ornamentals, Field-grown Nursery Stock, Liner Stock, Ground Covers, and Turfgrass

Active Ingredient:
Napropamide 50%
Other Ingredients 50%

TOTAL.....100%

Contains 50 lbs. of Active Ingredient per 100 lbs.
EPA Reg. No. 70506-38

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
Immediately start the procedures given below and contact a Poison Control Center, a physician, or the nearest hospital. Report the type and extent of exposure, describe the victim's symptoms and follow the advice given.	
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If on skin	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For 24-hour emergency medical treatment, contact the National Pesticide Information Center 1-800-858-7378.	

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

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

May be harmful if swallowed. Causes moderate eye injury and skin irritations. Do not breathe spray mist. Avoid contact with skin, eyes and clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical resistant gloves made of any waterproof material.
- 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.

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

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 wash waters.

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 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.

General Precautions

Read all instructions before using.

Use only for recommended purposes and at recommended rates. Do not overdose.

Except where specifically noted, Devrinol® 50-DF Ornamental Herbicide is not recommended for use on soil containing more than 10% organic matter.

Spraying on ground heavily covered with leaves or trash may adversely affect weed control.

Do not apply to frozen ground.

Do not contaminate irrigation water or water used for domestic purposes.

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) 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.

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AGRICULTURAL USE REQUIREMENTS (*continued*)
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.
- Chemical resistant gloves made of any waterproof material.
- Shoes plus socks.

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR WEED CONTROL, OR ILLEGAL RESIDUES.

GENERAL INFORMATION

Devrinol 50-DF Ornamental does not control established weeds. It must be applied to freshly weeded soil before weeds germinate, or during Fall and Winter months.

Devrinol 50-DF Ornamental can be applied to **newly planted** container stock after soil has settled from first watering, field grown nursery stock, dichondra, and to established plants.

Devrinol 50-DF Ornamental needs mechanical incorporation (such as a power tiller), adequate irrigation, or natural moisture (1-2 inches of rainfall or snow within 2-3 days) for optimum results.

Devrinol 50-DF Ornamental is recommended on several different container potting soil mixtures. These mixtures include those containing 30 percent soil and/or sand, and mixtures containing no soil. (For example: perlite, peat, bark, sawdust, and sand.)

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

WEEDS CONTROLLED BY 8 TO 12 LBS OF Devrinol 50-DF Ornamental	
ANNUAL GRASSES:	
Barnyardgrass, Junglerice	*Echinochloa* spp.
Foxtail Barley	*Hordeum jubatum*
Wild Barley	*Hordeum leporinum*
Annual Bluegrass	*Poa annua*
Bromes	*Bromus*
Cheatgrass	*B. secalinus*
Downy Brome	*B. tectorum*
Ripgut Brome	*B. rigidus*
Soft Chess	*B. mollis*
Canarygrass	*Phalaris canariensis*
Large (Hairy) Crabgrass	*Digitaria sanguinalis*
Smooth Crabgrass	*Digitaria ischaemum*
Southwestern Cupgrass	*Eriochloa gracilis*
Foxtails	*Setaria*
Bristly Foxtail	*S verticilla*
Giant Foxtail	*S. faberi*
Green Foxtail	*S. viridis*
Yellow Foxtail	*S. lutescens*
Goosegrass	*Eleusine indica*
Seedling Johnsongrass	*Sorghum halepense*
Wild Oats	*Avena fatua*
Panicums	*Panicum*
Guineagrass	*P. maximum*
Fall Panicum	*P. dichotomiflorum*
Texas Panicum	*P. texanum*
Witchgrass	*P. capillare*
Italian Ryegrass	*Lolium multiflorum*
Sandbur	*Cenchrus spp.*
Mexican Sprangletop	*Leptochloa uninervia*
Red Sprangletop	*Leptochloa filiformis*
Stinkgrass	*Eragrostis cilianensis*

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ANNUAL BROADLEAF WEEDS:	
Carpetweed	*Mollugo verticillata*
Common Chickweed	*Stellaria media*
Coast Fiddleneck	*Amsinckia intermedia*
Cudweed, Purple	*Gnaphalium purpureum*
Redstem Filaree	*Erodium cicutarium*
Common Groundsel	*Senecio vulgaris*
Prostrate Knotweed	*Polygonum aviculare*
Lambsquarters	*Chenopodium album*
Prickly Lettuce	*Lactuca serriola*
Little Mallow*	*Malva parviflora*
Redroot Pigweed	*Amaranthus retroflexus*
Pineappleweed	*Matricaria matricarioides*
Common Purslane	*Portulaca oleracea*
Horse Purslane	*Trianthema portullacastrum*
Common Ragweed**	*Ambrosia artemisiifolia*
Annual Sowthistle	*Sonchus oleraceus*

*From seed
**Suppression

GENERAL SITES OF USE

Nursery Stock (Field Grown): Consult list of plant species on which Devrinol 50-DF Ornamental can be used.

Apply Devrinol 50-DF Ornamental as a broadcast treatment over young nursery stock or as a directed application to larger stock either as a band or broadcast application.

Application can be made any time of the year to weed free soil; however, since Devrinol 50-DF Ornamental requires 1 to 2 inches of rainfall or irrigation soon after application for adequate weed control, applications should be timed to take advantage of rainfall if irrigation is not available. Fall and Winter applications will provide excellent weed control the following Spring and Summer. A thorough incorporation of Devrinol 50-DF Ornamental into the soil to a depth of 1 to 2 inches will provide excellent weed control with less rainfall required.

One application of Devrinol 50-DF Ornamental should provide adequate weed control for a growing season in temperate areas.

Container Grown Ornamentals: Consult list of plant species on which Devrinol 50-DF Ornamental can be used.

Apply Devrinol 50-DF Ornamental as a broadcast treatment over the containers.

Normal irrigation or rainfall (if a Fall or Winter application is made in cold areas) should provide sufficient water for satisfactory weed control.

Home Grounds, Highway And Industrial Ornamental Plantings: Use an overall (broadcast) treatment over young ornamentals or as a directed application where larger plants are growing. Irrigate soon after application or apply just before expected rain. Fall through Spring applications are preferred if irrigation is not available or if application is to be made in lower Summer rainfall areas.

Ground Covers: Apply Devrinol 50-DF Ornamental as a broadcast treatment over the ground covers.

Irrigate immediately with a minimum of 1 inch water or apply when rainfall is expected.

Dichondra: Apply Devrinol 50-DF Ornamental at the time of seeding, or to established dichondra including dichondra sod.

Irrigate with a minimum of 1 inch of water.

CONFIDENTIAL

SPECIFIC ORNAMENTALS, NURSERY STOCK, AND CONTAINER STOCK FOR DEVRINOL USE

Field Grown Deciduous and Evergreen Trees

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

Deciduous and Evergreen Shrubs

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

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.

Ground Covers

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

Container Stock

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

Flowers

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

APPLICATION RATES FOR SITES LISTED ABOVE

Annual Weeds: For annual grasses and broadleaf weeds, apply 8-12 lbs of Devrinol 50-DF Ornamental per broadcast acre (3-4.4 oz. per 2 1/2 gallons water per 1,000 sq. ft.). Do not apply more than 8 lbs of Devrinol 50-DF Ornamental per acre in California. Use the higher rate when weed populations are heavy or when broadleaves are the primary weeds.

Turf Grass (Warm Season Grasses Only)

Devrinol 50-DF 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 Devrinol 50-DF Ornamental at the recommended rate. Application should be made 2-3 weeds prior to weed emergence. Devrinol 50-DF Ornamental should be mixed with enough water to give adequate coverage of the area to be treated (but no less than 80 gallons per acre). Use a lawn type spray gun.

Devrinol 50-DF 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 application of Devrinol 50-DF Ornamental should be moved back several weeks to allow for some rainfall between application and weed germination.

For Crabgrass Control: Apply 4-6 lbs. of Devrinol 50-DF Ornamental per acre in 80-120 gallons of water (1.5-2.25 oz. per 2 1/2 gallons of water per 1,000 sq. ft.). Goosegrass usually starts to germinate 6-7 weeks after the start of crabgrass germination.

Split Application for Crabgrass and Goosegrass Control: When both of these weeds are to be controlled, apply 4 lbs. of Devrinol 50-DF Ornamental spread uniformly per acre (1.5 oz. per 1,000 sq. ft.) for crabgrass and another 4 lbs. of Devrinol 50-DF 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 Devrinol 50-DF Ornamental should be made in the Fall before the annual bluegrass germinates. Apply 4-6 lbs. of Devrinol 50-DF Ornamental per acre in 80-120 gals. of water (1.5-2.25 oz. per 2 1/2 gals. of water per 1,000 sq. ft.).

TANK MIXTURE (Warm Season Turf Grasses Only)

Observe all cautions and limitations on labeling of all products used in combination.

Make only one application per season.

Do not contaminate water by cleaning of equipment or disposal of wastes. Apply these combinations only as specified on this label.

For tank mixture application, apply the recommended dosage (See Directions for Use) in 80 gals. of water per acre.

General Tank Mix Directions

Proper care must be used in preparing combination tank mixtures to avoid incompatibility problems. Fill the spray tank at least 2/3 full of water. Start agitation and continue moderate agitation throughout mixing and application. Add, mix and disperse wettable powders first and flowable products next. Make sure each product is thoroughly wetted and dispersed prior to addition of the next product. Complete filling the tank with water, mix thoroughly, and maintain moderate agitation to provide a uniform mix during application. The tank mix combination should not be left in the spray tank for prolonged periods; batches should be mixed and applied the same day. All return lines to the tank must discharge below liquid level.

SPECIMEN LABEL

Devrinol 50-DF Ornamental/Betasan® 4E Combination

Devrinol 50-DF Ornamental may be used as a tank mix combination with Betasan 4-E Herbicide for crabgrass control in the following established turf grass: Bahia, Bermudagrass, Centipede, St. Augustine and Fescue.

Add the recommended amount of Devrinol 50-DF Ornamental to the spray tank while filling with water. After the Devrinol 50-DF Ornamental is thoroughly wetted out and dispersed in all of the water, then add the recommended amount of Betasan 4E and mix to provide a uniform dispersion. Apply in at least 80 gals. of water per acre.

Apply 4 lbs. of Devrinol 50-DF Ornamental and 5 qts. of Betasan 4E per acre using a minimum of 80 gals. of water. Application should be made at least 2-3 weeks before the earliest germination date for crabgrass in your area.

The Devrinol 50-DF Ornamental/Betasan 4E combination requires a minimum of one-half (1/2) inch of rainfall or irrigation 2-3 days after application for adequate control. If irrigation is not available, the application should be delayed several weeks to allow for some rainfall between application and weed germination.

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

STORAGE AND DISPOSAL

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

Pesticide 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: Do not reuse. 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.

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 United Phosphorus, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus and Seller harmless for any claims relating to such factors.

United Phosphorus 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 United Phosphorus, and Buyer and User assume the risk of any such use. UNITED PHOSPHORUS MAKES NO IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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SPECIMEN