

EPA Reg. Number: 228-537 DEC - 5 2007

Term of Issuance:

Conditional

Name of Pesticide Product:

Dithiopyr 1 EC Herbicide

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505P)
Ariel Rios Building
1200 Pennsylvania Ave. NW
Washington, D.C. 20460

NOTICE OF PESTICIDE:

X Registration Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Nufarm Americas, Inc. 150 Harvester Drive, Suite 200 Burr Ridge, IL 60527

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

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)(A) provided that you:

1. Add the phrase "EPA Registration No. 228-537 to the label before you release the product for shipment.

COMMENTS CONTINUED ON PAGES 2 OF THIS NOTICE OF REGISTRATION

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 under the enclosed stamped copy of the label constitutes acceptance of these conditions.

Enclosure

Kathryn V. Montague Acting Product Manager (23) Herbicide Branch Registration Division (7505P)

Signapure of Approving Official:

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AND ASTORES

SIGNAPURE OF APPROVING OFFICIALS

Date:

DEC - 5 2007



2. Submit the following data required for the registration of this pesticide product within 1 year form the date of this Notice of Registration:

EPA Guideline Data Number	Guideline Descriptor
830.6317	Storage Stability Study
830.6320	Corrosion Characteristics

- 3. On the "Residential" Labeling, add a comma after the clause "at more than 1" to the New York restrictions on the front panel.
- 4. On both labels, revise the "Note to Physician" to read: "Contains petroleum distillates. May pose an aspiration pneumonia hazard".
- 5. On the "Commercial" labeling, page 6, under "Spring and Summer Applications" revise the directions in the first sentence to read: "For spring or early summer applications, use Table 1 to determine use rate selected for your application program." And, on page 8, revise 3<sup>rd</sup> sentence in 1<sup>st</sup> paragraph to read "Therefore, only treated areas that are free of weeds at the time of application".
- 6. Submit to his Agency a copy of the purchasing order or bill of sales showing the source of the product named on the Formulator's Exemption Statement dated May 22, 2007 and with which this product is to be manufactured; prior to manufacturing this pesticide product.
- 7. Submit one (1) copy of the final printed labeling before you release this product for shipment.
- 8. Submit and/or cite all data required for the registration of this product when the Agency requires all registrants of similar products to submit data; and submit acceptable responses required for reregistration of this product under FIFRA, section 4.

# DITHIOPYR 1 EC HERBICIDE

THIS HERBICIDE PROVIDES CONTROL OR SUPPRESSION LISTED ANNUAL GRASSES AND BROADLEAF WEEDS IN ESTABLISHED LAWNS AND ORNAMENTAL LANDSCAPE AREAS.

**ACTIVE INGREDIENT:** 

Contains petroleum distillates Contains 1 pound per gallon of dithiopyr

In the state of New York, this product may not be applied at more than 1 0.75 fl. oz./1000 sq. ft. (equivalent to 0.25 lb active ingredient/acre) per year.

# WARNING - AVISO

Si usted no entiende la etiqueta, busque a alquien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300 For Medical Emergencies Only, Call (877) 325-1840

ACCEPTED
with COMMENTS
In EPA Letter Dated:
DEC - 5 2007

EPA REG. NO. 228-LGT EPA EST. NO. Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

228-537

MANUFACTURED BY NUFARM AMERICAS INC. 150 HARVESTER DRIVE BURR RIDGE, IL 60527



**NET CONTENTS** 

000000.00000.20071127.EPA.Pending

Dithiopyr 1 EC Herbicide contains dithiopyr, the active ingredient in Dimension®

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING - AVISO

Causes skin irritation. Causes substantial but temporary eye injury. Harmful if swallowed. Do not get on skin or on clothing. Wear long-sleeved shirt and long pants, socks, chemical resistant footwear and chemical resistant gloves. Remove contaminated clothing and wash before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Wear protective eyewear (goggles, face shield or safety gloves). Do not allow people or pets to enter treated areas until sprays have dried.

	FIRST AID
IF ON SKIN OR CLOTHING	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
IF IN EYES	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
IF SWALLOWED	<ul> <li>Immediately call a poison control center or doctor.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give any liquid to the person.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
	HOT LINE NUMBER container or label with you when calling a poison control center or doctor, or going for treatment. You may also 1840 for emergency medical treatment information.
Contains petroleun	NOTE TO PHYSICIAN  n distillates – vomiting may cause aspiration pneumonia.

# **ENVIRONMENTAL HAZARDS**

This product is highly toxic to fish and other aquatic organisms including oysters and shrimp. Use with care when applying to turf areas adjacent to any body of water. Drift and runoff from treated turf may adversely affect aquatic organisms in adjacent aquatic sites. Do not apply directly to water. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with it labeling.

Notice: Read the entire label. Use only according to label directions. Before using this product, read the WARRANTY DISCLAIMER and LIMITATION OF LIABILITY at the end of this label. If terms are unacceptable, return at once unopened.

Do not use on plants or turf grown for sale or other commercial uses such as sod farms, commercial seed production, or for research purposes.

#### **GENERAL INFORMATION**

If applied to established lawns or ornamental landscape areas before weeds germinate, this product will control crabgrass and will control or suppress other listed weeds for up to 4 months. If applied after crabgrass emergence, this product will provide up to 4 weeks control of crabgrass.

#### **MIXING INSTRUCTIONS**

Use hand-held pump-up or backpack spray equipment for applications of this product. Fill a clean spray tank with about 3/4 the total amount of water needed and then add the required amount of this product. Finish adding the rest of the water.

Use 1.5 fl. oz. (3 tablespoons) of this product in 1 to 2 gallons of water for every 1,000 sq. ft. treated. In the state of New York, do not apply more then 0.75 fl. oz. (4-1/2 teaspoons) of this product in 1 to 2 gallons of water for every 1,000 sq. ft. treated. (NOTE: 1,000 sq. ft. is the same as an area 100 feet by 10 feet or an area that is 32 feet by 32 feet).



#### **USE RATES**

Refer to the chart below for use rates and amounts to use for small treatment areas.

#### Maximum Use Rates

- Do not apply more than 1.5 fl. oz. of this product per 1,000 sq. ft. per application or more than 4.5 fl. oz./1,000 sq. ft. per year.
- In the state of New York, do not apply more than 0.75 fl. oz. of this product per 1,000 sq. ft. per year (equal to 0.25 lb active
  ingredient per acre).

Equivalent Amount of this product per 1,000 sq. ft.	Application Rate (Active Ingredient per Acre)		
	0.25 lb. Active ingredient/Acre	0.50 lb. Active ingredient/Acre 1.5 3	
fl. oz.	0.75		
Tablespoons	1.5		
Teaspoons	4.5	9	
Milliliters	22.5	45	

Equivalent Amount of this product to treat:	Application Rates for Treating Small Areas				
	0.75 fl. oz. per 1000 sq. ft.		1.5 fl. oz. per 1000 sq. ft.		
	100 sq. ft.	500 sq. ft.	100 sq. ft.	500 sq. ft.	
fl. oz.	0.075	0.375	0.15	0.75	
Teaspoons	1/2	2-1/4	1	4-1/2	
Milliliters	2.25	11.25	4.5	22.5	

#### HOW TO OPTIMIZE WEED CONTROL

Best results are obtained when the following steps are taken:

- Apply this product <u>uniformly</u> as a coarse mist over the turfgrass. For ornamental plantings, direct the spray to the soil surface
  and do not allow the spray to contact the foliage. NOTE: Thorough coverage of the turfgrass or soils is required. When applied
  to turf, prevent streaking, skips or excess overlap of this product during application. Do not allow sprays to drift into untreated
  areas.
- · Apply this product after the grass is mowed, and wait a few days after application before mowing again.
- To be effective and to provide improved performance, this product must be activated by 1/2 inch of rainfall or sprinkler irrigation
  after application. Be sure that the irrigation or rainfall occurs within 30 days of application or satisfactory weed control may not
  be achieved.

# **DIRECTIONS FOR USE ON ESTABLISHED TURFGRASSES**

### Use Precautions for Turf

Use this product only on well established lawns and only to species of turfgrass listed on this label. If the lawn has just been established, wait to apply this product until the grass has developed a good root system and uniform stand, and has been mowed at least twice after seeding, sodding or sprigging.

- If turf is not well-established, or has been weakened by stress from extreme temperatures, lack of water, or pests, this product
  may cause turf injury.
- Activities that disturb the soil (core-, spike-, or hydro-aerification, and verticutting), should be done before this product is applied.
   Allow the grass to recover after these activities before this product is applied.
- Reseeding, Overseeding, or Sprigging: If reseeding, overseeding or sprigging of treated areas occurs within 10 weeks after a single application of this product, or 16 weeks after a split application program totaling more than 1.5 fl. oz./1,000 sq. ft. (2 qt./acre), desirable turfgrass establishment may be inhibited. If this product is applied in the fall, wait 12 weeks after application before reseeding, overseeding or sprigging turf.
- · Do not use clippings from treated turf for mulching around vegetables or fruit trees.
- · Re-entry: Do not allow people or pets to enter treated areas until the sprays have dried.

Apply this product only to established turfgrass species listed below which are tolerant to this product if applied as directed.

Cool-Season Grasses	Warm-Season Gresses
Bentgrass, creeping <sup>1</sup>	Bahiagrass
Bluegrass, Kentucky	Bermudagrass <sup>3</sup>
Fescue, Fine <sup>2</sup>	Buffalograss <sup>4</sup>
Fescue, Tall	Carpetgrass
Ryegrass, Perennial	Centipedegrass
	St. Augustinegrass
	Zoysiagrass

- Undesirable turigrass injury may result if this product is used on certain varieties of creeping Bentgrass ('Cohansey', 'Carmen', 'Seaside'), therefore this product is not recommended for use on these varieties. Not all varieties of creeping bentgrass have been tested for tolerance to this product. Do not apply this product to Colonial bentgrass varieties.
- The following varieties of fescue are sensitive to this product: 'Atlanta', 'Banner', 'Beauty', Bilgart', 'CF-2', 'Enjoy', 'HF-93' 'Highlight', Ivalo", 'Jamestown', 'Koket', 'Majenta', ' Mary', 'Pennlawn', Tamara', 'Tatjana', Waldorf', and 'Waldina'.
- <sup>3</sup> Undesirable turfgrass injury may result if this product is used on 'Tifgreen' (328) hybrid bermudagrass greens.
- 4 For seedling Buffalograss, do not apply this product in the spring of the first year of establishment. Apply only after the turfgrass is fully green and the roots are well established

#### **TIMING OF APPLICATIONS**

**Spring Applications for Crabgrass Control** 

Pre-emergence Applications: If applied to established lawns areas <u>before weeds germinate</u>, this product will control crabgrass and control or suppress other listed weeds for up to 4 months.

**Post-emergence Applications:** This product will provide control only of seedling crabgrass for up to 4 weeks after the crabgrass germinates and emerges. If crabgrass begins to spread (tiller), this product will not be effective and should not be applied later than 4 weeks after germination. No other weeds are controlled or suppressed by this product after the weeds have germinated.

Other Grass and Broadleaf Weeds: This product only works to control or suppress other listed weeds if applied as a pre-emergent spray, that is, before the weeds germinate and emerge.

#### **Fall Applications**

Pre-emergence Applications: Apply this product in late August through November for pre-emergence control of listed weed (including Poa annua). For season-long weed control, follow this fall application with an appropriately timed spring application of this product.

#### **WEEDS CONTROLLED OR SUPPRESSED**

The following grass and broadleaf weeds, in addition to crabgrass, will be controlled or suppressed by this product when applied before weeds germinate.

Grasses	Broadleaf Weeds
Barley	Bittercress *
Barnyardgrass	Carpetweed
Bluegrass, annual (Poa annua)	Chickweed *
Brome	Geranium, Carolina *
Crabgrass, large	Henbit
Crabgrass, smooth	Knotweed, prostrate
Crabgrass, Southern	Lespedeza, common *
Crowfootgrass *	Marestail
Dallisgrass (seedling)	Medic, black
Goosegrass	Mustard
Foxtail, green	Oxalis, buttercup
Foxtail yellow	Pineappleweed
Kikuyugrass *	Pigweed, redroot
Oats, wild	Parsley-piert *
Ryegrass, Annual and Perennial	Purslane, common
Sandbur (sandspur, grassbur)	Rocket, London
Smutgrass	Shepherdspurse
<del></del>	Speedwell, corn *
	Spurge, garden
	Spurge, prostrate
	Spurge, spotted
	Woodsorrel, creeping
	Woodsorrel, yellow
* suppression only	

#### **DIRECTIONS FOR USE ON LANDSCAPE ORNAMENTAL PLANTINGS**

Applied as a preemergence spray, this product will control or suppress the listed annual grasses and broadleaf weeds in areas with ornamental plantings. Refer to the sections above on application and mixing directions, use rates and weeds controlled or suppressed.

This product does not control established weeds. It must be applied to bare ground before weeds germinate. Optimum results are obtained if the soil is free of clods, weeds, and debris (i.e., leaves) before application. In addition, remove any existing weeds by hand-weeding, by cultivation, or with a posternergence herbicide.

Direct the sprays of this product to the base of the ornamentals and avoid spray contact or drift to plant foliage. Application of this product over the top of ornamentals is not recommended.

After an application of this product, leave the soil undisturbed.

Make up to three applications at 1.5 fl. oz. per 1,000 sq. ft per year at 3 to 4 month intervals. This application schedule will maintain continuous preemergence weed control. Do not exceed the maximum use rates specified in the Use Rates section above, and refer to the maximum rates permitted in the state of New York.

# **Precautions for Ornamental Plantings**

- Apply this product only to ornamentals that are well established. Make sure that the soil or planting mixes have settled firmly
  after transplanting and that there are no cracks in the soil to prevent this product from contacting and injuring the plant roots.
- Do not mix the soil after an application of this product to prevent dilution of the product which might cause injury to plant roots.
- To prevent further injury, do not apply this product to ornamental plants that have been weakened or are under stress (due to drought, flooding excessive fertilizer or soil salts, frost damage, hail, wind, winter injury, injury from previously applied pesticides or injury due to insects, nematodes or diseases).
- Do not make applications if windy conditions exist. Such conditions may cause an uneven distribution of the spray droplets and give poor weed control. In addition, drift to non-target areas may occur and injure non-target plant foliage.

# **TOLERANT ORNAMENTALS**

A list of the plants tolerant to this product is found in the table below. Although these ornamental plants have shown tolerance to this product, not all ornamental plant species or varieties have been tested, especially under different growing conditions. Test tolerance by applying this product to a few plants growing in a small area. Evaluate the plants for tolerance when grown under your local conditions before making applications of this product on a large number of plants.

Abelia, Dwarf Ajuga Almond, Flowering Apple\* Arborvitae Arborvitae, Golden Aster, Chinese Ash, Green Ash, Mountain Ash, Purple Azalea Azalea, Flame Azalea, Kirishima Bamboo, Heaveniv Barberry Barberry, Purple Basket flower Beach grass Bearberry (common) Bee Baim Begonia Birch, River Blackeyed Susan Blanket Flower Blueberry\* Bottlebrush Boxwood, Japanese Boxwood, Weller Broom

Camellia Candy Tuft Carex, Variegated Cedar, Red Celosia Centaura Cockscomb, Plumosa Coleus Columbine Copper leaf

**Bugle Carpet** 

Coreopsis Corn Flower Cotoneaster Coyotebrush Cycads Cypress, Bald Cypress, Italian Cypress, Japanese False Cypress, Leyland

Daffodil Davlilly

Dianthus (Sweet William) Delphinium Dogwood

Dogwood, American Douglas Fir **Dusty Miller** Elm, Drake Euonymus

Fan Palm, European

Fan Palm, Mexican Fern (various) Fescue Fetterbush **Ficus** Fir Fraser Forsythia Fountain grass **Fuchsia** Galium Gardenia Geranium Gum Hawthorn

Heather, Twisted Hemlock, Canada Hibiscus Holly Holly, Chinese Holly, Japanese Holly, Yaupon Honeysuckie Hosta ice plant **Impatiens** Iris tvy, English

Jasmine, Asian Juniper King palm Laurel, Australian Laurel, Mountain Leucothoe Liqustrum, Japanese Lily, African

Lily, African Blue Lily of the Valley Lilyturf Liriope, Green Maple, Japanese Maple, Norway Maple, Red\* Maple, Silver Maple Sugar\* Marigold Mock Orange\* Mondo Grass Moss Rose

Myrtle, Crape Myrtle, Wax Nandina Narcissus Oak, Laurel Oak, Pin Oak, Red Oak, Southern Oak, Willow Oleander Osteospermum Palm, Bangalow Pampas Grass Pansy Paper Flower Peach\* Periwinkle, Dwarf

Petunia Photinia, Red Tip

Pieris Pine, Australian Pine, Japanese Black Pine, Loblolly Pine, Longleaf Pine, Mugo Pine, Scotch Pine, Slash Pine, Swiss Mt. Pine. Virginia Pine, White Pineapple, Guava\* Pittosporum, Japan Potentilla

**Privet** Privet, Glossy Pyracantha Queen Palm Quince, Japanese\* Rhododendron

Rhododendron, Carolina Rhododendron, Catawba

Rockcress

Rhodie Max (Rosebay) Rose\*

Rosemary\* Rosemary, Bog Salvia Sedum Snapdragon Sourwood Spiraea Spiraea, Garland

Spruce, Black Hills Spruce, Colorado Blue Spruce, Norway Spruce, White Sweetflag, Grassyy-Le

Sweetgum Sycamore

Tree Fern (Tiki Fern) Trumpet Flower, Evening

Tulip

Verbena, Shrub Vervain Viburnum Vinca (Periwinkle) Windmill Palm Xvlosma

Yarrow Yaupon. Yew

Pachysandra

<sup>\*</sup> Ornamental species only. DO NOT USE ON FOOD-PRODUCING TREES AND PLANTS.

#### STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

**PESTICIDE STORAGE:** Store this product only in its original container in a dry, cool secured storage area. **CONTAINER DISPOSAL:** If empty: Do not reuse this container. Place in trash or offer for recycling, if available. If party filled: Call you local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

# **WARRANTY DISCLAIMER**

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

#### LIMITATION OF LIABILITY

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR DAMAGES IN THEIR NATURE OF PENALTIES RELATING TO THE GOODS SOLD, INCLUDING USE, APPLICATION, HANDLING, AND DISPOSAL. MANUFACTURER OR SELLER SHALL NOT BE LIABLE TO BUYER OR USER BY WAY OF INDEMNIFICATION TO BUYER OR TO CUSTOMERS OF BUYER, IF ANY, OR FOR ANY DAMAGES OR SUMS OF MONEY, CLAIMS OR DEMANDS WHATSOEVER, RESULTING FROM OR BY REASON OF, OR RISING OUT OF THE MISUSE, OR FAILURE TO FOLLOW LABEL WARNINGS OR INSTRUCTIONS FOR USE, OF THE GOODS SOLD BY MANUFACTURER OR SELLER TO BUYER. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER, USER, OR ITS CUSTOMERS. BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

(NEW)

# DITHIOPYR 1 EC Herbicide

THIS HERBICIDE CONTROLS OR SUPPRESSES LISTED ANNUAL GRASSES AND BROADLEAF WEEDS IN ESTABLISHED LAWNS, COMMERCIAL SOD FARMS, NON-CROPLAND AND INDUSTRIAL SITES, ORNAMENTAL TURF (INCLUDING GOLF COURSE FAIRWAYS, ROUGHS, TEE BOXES, AND PUTTING GREENS) AND LANDSCAPE ORNAMENTALS.

#### **ACTIVE INGREDIENT:**

Dithiopyr: S,S'-dimethyl 2-(difluoromethyl)-4(2-methylpropyl)-	<ul> <li>6-(trifluoromethyl)-3,5-pyridinedicarbothioate</li> </ul>	12.7%
OTHER INGREDIENTS:		
	TOTAL:	

Contains petroleum distillates Contains 1 pound per gallon of dithiopyr

In the state of New York, this product may only be used by commercial applicators only at no more than 2 quarts/acre (0.5 lb active) per year. Use is prohibited in Nassau and Suffolk counties.

# WARNING - AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300 For Medical Emergencies Only, Call (877) 325-1840

EPA REG. NO. 228-LGT EPA EST. NO. ACCEPTED with COMMENTS In EPA Letter Dated:
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Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

228-537

MANUFACTURED FOR NUFARM AMERICAS INC. 150 HARVESTER DRIVE BURR RIDGE, IL 60527



**NET CONTENTS** 

Dithiopyr 1 EC Herbicide contains dithiopyr, the active ingredient in Dimension®

000228-000000.20071126.New.Pending

Commercial

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# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING - AVISO

Causes skin irritation. Causes substantial but temporary eye injury. Harmful if swallowed. Wear long-sleeved shirt and long pants, socks, chemical resistant footwear and chemical resistant gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse. Do not get on skin or on clothing. Wear protective eyewear (goggles, face shield or safety gloves).

#### PERSONAL PROTECTIVE EQUIPMENT (PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category G on an EPA chemical-resistance category selection chart.

#### Applicators and other handlers (other than mixers or loaders) must wear:

- · Coveralls over short-sleeved shirt and short pants .
- · Chemical-resistant footwear and socks
- · Protective eyewear
- · Chemical-resistant gloves such as Barrier Laminate or Viton ≥ 14 mils

#### Mixers and Loaders must wear:

- · Coveralls over short-sleeved shirt and short pants
- · Chemical-resistant footwear and socks
- · Protective eyewear
- · Chemical-resistant gloves such as Barrier Laminate or Viton ≥ 14 mils

Contains petroleum distillates - vomiting may cause aspiration pneumonia.

· Chemical-resistant apron

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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 meet 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 PPE immediately after handling this product.
- · Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

	FIRST AID
IF ON SKIN OR CLOTHING	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
IF IN EYES	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, i present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
IF SWALLOWED	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
	HOT LINE NUMBER  Intainer or label with you when calling a poison control center or doctor, or going for treatment.  Emergency involving this product, call 1-877-325-1840.
	NOTE TO PHYSICIAN

# **ENVIRONMENTAL HAZARDS**

This product is highly toxic to fish and other aquatic organisms including oysters and shrimp. Use with care when applying to turf areas adjacent to any body of water. Drift and runoff from treated turf may adversely affect aquatic organisms in adjacent aquatic sites. 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 apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwaters.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with it labeling. Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other person, 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) 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 over short-sleeved shirt and short pants
- · Chemical-resistant footwear plus socks
- · Protective evewear.
- Chemical-resistant gloves such as Barrier Laminate or Viton ≥ 14 mils

#### 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.

· Keep unprotected persons out of treated area until sprays have dried.

#### **GENERAL INFORMATION**

#### This product is not intended for use by homeowners.

In New York State this product may only be applied only by commercial applicators and use in Nassau and Suffolk Counties is prohibited.

This product controls crabgrass and other annual grasses and broadleaf weeds in the following sites:

- · established lawns
- · commercial sod farms
- · ornamental turf (including golf course fairways, roughs, tee boxes, and putting-greens)
- · terrestrial noncropland areas
- · ornamental plantings and containers.

This product does not control established weeds except for control of emerged crabgrass up to initiation of tillering. For crabgrass, tillering is defined as the time when crabgrass seedlings first become visible in established turfgrasses. Use of this product after the crabgrass tillering stage will not provide satisfactory control. For control of other weeds, apply this product preemergence (before weeds germinate).

In order to be effective, this product must be activated by 1/2 inch or more of rainfall or irrigation. Time applications of this product so that irrigation or rainfall occurs before tillering stage of crabgrass development or before germination of all other weeds.

#### **MIXING INSTRUCTIONS**

This product can be applied after mixing with water, fluid fertilizers or other herbicides. Follow the directions below for mixing instructions. If this product is to be mixed with fluid fertilizers or other herbicides, conduct a Compatibility Test (see instructions below) before preparing the tank mix.

## This product Alone with Water as the Carrier

- 1. Add 3/4 of the total amount of water to a clean spray tank.
- 2. Add the required amount of this product to the tank.
- 3. Begin agitation and fill the tank with water.
- 4. When the tank is full, immediately remove the hose to prevent siphoning of the spray mixture back into the water source.

## This product with Fluid Fertilizer as the Carrier or as a Tank Mix Partner

Determine if this product is compatible with the fluid fertilizer or the tank mix partner product(s) by following using the Test for Compatibility directions below.

When mixing with tank mix partner(s), check the tolerance of turfgrass and ornamentals on the other product(s) label(s). Follow all limitations, precautionary statements, and use restrictions on the respective labels when using them in tank mixtures. To improve control of weeds, a nonionic surfactant may be added. Refer to the surfactant manufacturer's label for use recommendations.

- 1. Cover the filling port with a 20 to 35-mesh screen or wetting basket.
- Add 1/2 of the total amount of carrier (water or fluid fertilizer) to a clean spray tank. Begin agitation and continue to agitate during mixing and application.
- If needed, add a compatibility agent. Refer to the label of the compatibility agent for directions. Be sure the tank mix is well agitated.
- 4. Add the following formulation types in the order given:
  - a. Flowables (before adding to tank, make a 1:1 mixture with water and add to the tank).
  - b. Wettable powders (before adding to tank, mix with water and add the slurry to the tank).
  - c. Emulsifiable concentrates, including the required amount of this product.
  - d. Water-soluble liquid formulations.
  - e. Surfactants, marker dyes, foams, drift control agents.
- 5. Fill the tank with water.
- 6. When the tank is full, immediately remove the hose to prevent siphoning of the spray mixture back into the water source.
- Good agitation is required throughout the mixing and application steps. If the spray solution settles, re-agitate to thoroughly mix the spray solution before spraying continues.

#### Test for Compatibility

This test is recommended before mixing this product with fluid fertilizers and/or other pesticides. Mix all of the components in a small pint jar.

These directions are specific for applications made at 25 gallons spray solution per acre. The amount of product to test (noted below) is a general guideline for products tank-mixed with this product.

- 1. Refer to the product label for the appropriate amount to use in the tank mix.
- 2. Calculate the amount to add to a one pint jar using the following guidelines:
  - · For dry products applied at 1 lb per acre, add 1-1/2 teaspoon to a one pint jar.
  - · For liquid products applied at 1 quart per acre, add 1 teaspoon to a one pint jar.
- 3. For the amount of this product to add to the jar, add 1 teaspoon if the use rate will be 1 quart per acre.
- 4. Adjust the amounts to add if the spray volume or use rates are changed.
- 5. Shake the jar to mix all components and let sit for 5 minutes.
- 6. If the mixture in the jar forms crystals, flakes, sludge, gels, oily films or layers, the components are NOT compatible,
- 7. Repeat the test using a compatibility agent. Add 1/2 teaspoon (for agents applied at 2 pints per 100 gallons of spray solution) to the jar.
- 8. If after 5 minutes, the mixture does NOT form crystals, flakes, sludge, gels, oily films or layers, the components are compatible, Do not use these components in a spray tank mix if the compatibility test fails.

#### **WEED CONTROL IN TURFGRASSES**

#### **Use Precautions for Turfgrass Safety**

Use this product on well established lawns (seeded, sodded, or sprigged) and ornamental turfs. Do not apply this product until the grass has developed a good root system and uniform stand, and has been mowed at least twice after seeding, sodding or sprigging. If turf is not well-established, or has been weakened by weather-, pest-, disease-, chemical-, mechanical or other related stress, this product may cause turf injury.

#### Other Use Precautions

- This product only provides early postemergence control crabgrass if applied before the fifth leaf (first tiller) stage of growth of crabgrass.
- Activities that disturb the soil (core-, spike-, or hydro-aerification, and verticutting), should be done before this product is applied.
   Allow the grass to recover after these activities before this product is applied.
- · Do not use clippings from treated turf for mulching around vegetables or fruit trees.

The following established turfgrasses are tolerant to this product (see additional turfgrass safety precautions in the "Golf Course Putting Greens" section of this label) if applied as directed.

Cool-Season Grasses	Warm-Season Grasses
Bentgrass, creeping¹ (Agrostis palustris)	Bahiagrass (Paspalum notatum)
Bluegrass, Kentucky (Poa pratensis)	Bermudagrass³ (Cynodon dactylon)
Fescue, Fine² (Festuca rubra)	Buffalograss4 (Buchloe dactyloides)
Fescue, Tall (Festuca arundinacea)	Carpetgrass (Axonopus affinis)
Ryegrass, Perennial (Lolium perenne)	Centipedegrass (Eremochloa ophiuroides)
	Kikuyugrass (Pennisetum clandestinum)
	Seashore Paspalum (Paspalum vaginatum)
	St. Augustinegrass (Stenotaphrum secundatum)
	Zoysiagrass (Zoysia japonica)

- Undesirable turfgrass injury may result if this product is used on certain varieties of creeping Bentgrass ('Cohansey' 'Carmen' 'Seaside' and 'Washington'). This product is not recommended for use on these varieties. Not all varieties of creeping bentgrass have been tested for tolerance to this product. Do not apply this product to Colonial bentgrass (Agrostis tenuis) varieties.
- <sup>2</sup> Undesirable turfgrass injury may result if this product is used on certain varieties of fine fescue: 'Atlanta', 'Banner', 'Beauty', Bilgart', 'CF-2', 'Enjoy', 'HF-93', 'Highlight', Ivalo", 'Jamestown', 'Koket', 'Majenta', ' Mary', ' Pennlawn', Tamara', ' Tatjana', Waldorf', and 'Waldina'. Not all varieties of fine fescue have been tested for tolerance to this product.
- 3 Undesirable turfgrass injury may result if this product is used on 'Tifgreen' (328) hybrid bermudagrass greens.
- <sup>4</sup> For seedling Buffalograss, do not apply this product in the spring of the first year of establishment. Apply only after the turfgrass is fully green and the roots are well established.

#### Reseeding, Overseeding, or Sprigging

If reseeding, overseeding or sprigging of treated areas occurs within 3 months after a single application of this product, or 4 months after a split application program totaling more than 1.5 fl. oz./1000 sq. ft. (2 quarts/acre), desirable turfgrass establishment may be inhibited. Overseeding of bermudagrass with perennial ryegrass 8 weeks after application (or as early as 6 weeks after application) can be carried out if slight injury to the perennial ryegrass can be tolerated.

Follow normal cultural practices such as soil cultivation, irrigation and fertilization when reseeding or overseeding. The use of mechanical or power seeding equipment (slit seeders) designed to give good seed to soil contact is recommended for best results.

#### **Golf Course Putting Greens**

Injury to putting greens may occur if the greens are not well drained or are not managed to promote the development of deep rooting systems. Application of this product to overseeded greens should be made less than four weeks before the transition period from overseeded turfgrasses back to established turfgrass.

To ensure safety to turfgrass on greens, consider using split applications at 6 to 8 weeks apart. Refer to Program 3, below, and use 1/2 the single application rate listed for your region.

- If golf course putting greens are under stress, such as from high temperatures, using this product may increase the risk of turfgrass injury. Do not use this product if Poa annua cover is desirable.
- Turfgrass injury may result if this product is applied to 'Tifgreen' (328) hybrid bermudagrass greens.
- · Do not apply this product to Colonial bentgrass greens.
- · Do not tank-mix this product with other products (other than marking dyes or foams) for application to greens.
- · Do not use this product on putting greens that received a plant growth regulator treatment within four weeks.
- Do not apply this product in the fall before the greens are covered for winter.
- Use properly calibrated application equipment. DO NOT apply this product through equipment that uses cluster spray nozzles because these nozzles result in variable use rates and spray patterns.

#### Sod Production

- · Make applications of this product to sod that has been established for at least six (6) months.
- · Do not apply this product within three (3) months of harvest.

# **Application Directions**

#### **Application Equipment**

Make applications of this product using conventional liquid application equipment. Use a sufficient volume of carrier to provide a uniform spray distribution. Liquid application equipment that have cluster spray nozzles (or other boomless spray equipment) is not recommended for this product applications because of the variability this type of quipment gives in application use rates and spray patterns. Calibrate application equipment prior to use. Use marker dyes or foam aids for more accurate applications and avoid streaking, skips or excess overlaps during application.

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

#### Crabgrass Control - Preemergence and Early Postemergence

For preemergence control of crabgrass (including the large, smooth, and southern species), apply this product before crabgrass emergence from the ground in established lawns and ornamental turfs.

For early postemergence control of crabgrass during the early stages of crabgrass growth after the crabgrass has emerged from the ground, apply this product when you can first easily see the crabgrass plants in the lawn or turf.

Improved early postemergence control may result if a nonionic surfactant (0.5 percent by volume or 2 qt. per 100 gal. of spray solution) is added to the this product spray tank. Read and follow the surfactant manufacturer's label recommendations.

#### Frequency and Timing of Application

This product may be applied to control crabgrass in the spring, summer, or fall. Follow the directions below for Spring and Summer and Fall applications and make applications as a single application, as a split application, or as a sequential application

#### **Spring and Summer Applications**

For spring or early summer applications, use Table 1 to determine the this product use rate depending on the program. The three control programs are specific for

- · the location in which it is to be used
- · the mowing height of the turfgrass, and
- · whether the application is preemergence or early postemergence

Several factors will determine how long this product will provide residual weed control including the total rate applied, weather, weed pressure, turfgrass competitiveness, and the user's location within a region.

#### Maximum Use Rates (All Turf Uses)

- Do not apply more than 1.5 fl. oz./1,000 sq. ft. (2 qt./acre) per application or more than 4.5 fl. oz./ 1,000 sq. ft. (6 qt./ acre) per year using split or sequential applications.
- In the state of New York, do not apply more than 2 qt./acre (0.5 lb. active ingredient) per year. Use is prohibited in Nassau and Suffolk counties.

#### **Fall Applications**

Use the "Program 3" use rates listed in Table 1 to apply this product in late August through November. This product will control crabgrass through the early part of the next spring. For season-long weed control, follow this fall application with an appropriately timed spring application of this product. Do not exceed this product's maximum use rate per year.

Table 1: Recommended Use Rates

Transition States: DE, KS, KY, MD, MO, NJ, VA, southern areas of IL, IN, and OH, southeastern PA, southeastern PA, and coastal areas of CT and RI	Southern States: AL, AR, GA, LA,	Coastal Southern States: HI, FL and southern coastal areas of AL, GA, LA, MS, NC, SC, and TX	Western States: AZ, CA, & NV (see Footnote 1)
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#### Program 1

#### Select this program for:

- · 3-5 months of preemergence crabgrass control at sites where turfgrass is cut relatively high (e.g. homeowner lawns).
- Early posternergence crabgrass control (up to the 3 leaf stage) at sites where turfgrass is cut relatively high (e.g. homeowner's lawn).

Amount of this product						
qt/acre 1.0 1.5 2.0 1.33+1.33 1.0+1.5						
fl oz/1,000 sq ft	0.75	1.12	.1.5	1.0+1.0	0.75+1:12	
lb ai/acre	0.25	0.38	0.5	0.33+0.332	0.25-0.38	

#### Program 2

#### Select this program for:

- 4-6 months preemergence crabgrass control at sites where (a) turfgrass is cut relatively low (e.g. golf fairways) and (b) turfgrass maintenance or weed control has been conducted during the previous year.
- Early postemergence crabgrass control (up to crabgrass tillering) at sites where turfgrass is cut relatively high (e.g. homeowner's lawn).

Amount of this product					
qt/acre	1.5	2.0	1.33+1.33	1.5+1.5	1.5+2.0
fl oz/1,000 sq ft	1.12	1.5	1.0+1.0	1.12+1.12	1.12+1.5
lb ai/acre	0.38	0.5	0.33+0.332	0.38+0.382	0.38-0.5

### Program 3

#### Select this program for:

- 4-6 months of preemergence crabgrass control at sites where (a) turfgrass is cut relatively low (e.g. golf fairways) and (b) turf maintenance or weed control has not been conducted during the previous year.
- · Early postemergence crabgrass control (up to tillering) at sites where turfgrass is cut relatively low (e.g. golf fairways).

Note: For longer periods of control, make additional pre- and/or postemergence applications. For improved weed control, make two split applications using the rates listed in the table below at 5-10 weeks apart (see Footnote 2).

Amount of this product					
qt/acre	2.0	2.5	1.5+1.5	1.75+1.75	1.33+1.33
fl oz/1,000 sq ft	1.5	1.84	1.12+1.12	1.3+1.3	1.0+1.0
lb ai/acre	0.5	0.622	0.38+0.382	0.44+0.442	0.33+0.332

Footnote 1: Use the higher rates in local areas that have longer crabgrass seasons.

Footnote 2: In these cases, since the preemergence application totals more than 0.5 lb Al/acre (greater than 1.5 fl. oz./1,000 sq. ft. or 2 qt./ acre), this product applications must be made as split applications at 5 to 10 weeks intervals. For early postemergence applications, do not apply more than 0.5 lb Al/acre (1.5 fl. oz./1,000 sq. ft.) or 2 qt./acre per application.

# Tank Mixtures for Postemergence Control of Crabgrass

This product will control early postemergence crabgrass if applied before crabgrass reaches the tillering stage of growth. When applied as a tank-mix with either MSMA or Acclaim®, this product will control postemergence tillered crabgrass (up to 3 tillers). Check the compatibility (use the directions above, under "Test for Compatibility") of this product and MSMA or Acclaim® if applied with fluid fertilizers.

If a preemergence herbicide was applied before this postemergence application, use this product at the lower rate, otherwise use the

Observe all limitations, precautionary statements, and use restrictions on the MSMA or Acclaim® labels when using them in tank mixtures. Check the labels for tolerance of specific turfgrass species before application. Improved control may be achieved by the addition of a nonionic surfactant. Follow the surfactant manufacturer's label recommendations.

#### Other Grass and Broadleaf Weeds Controlled

Applied as a preemergence spray, this product will control the annual grass and broadleaf weeds listed in the table below. Except for crabgrass in early stages of development, and broadleaf weeds, this product does not control established weeds. Therefore, only treat areas which are free of weeds before application.

#### Extended Control of Annual Poa (Poa annua) in South and Coastal South Regions

This product can be used to extend the length of control of annual poa (Poa annua) in the south and coastal south regions. Make an initial application of 2 quarts per acre (0.5 lb Al/acre) 6 weeks before overseeding with perennial ryegrass. Then, make a second application of 1 to 2 qt./acre (0.25 to 0.5 lb. Al/acre) 120 days after overseeding. The overseeded perennial ryegrass may be injured (see "Reseeding, Overseeding, or Sprigging" precautions under "Use Precautions for Turfgrass Safety").

Broadleaf Weeds
Bittercress (Cardamine spp.)
Carpetweed (Mollugo verticillata)
Chickweed (Stellaria spp.)
Geranium, Carolina (Geranium carolinianum)
Henbit (Lamium spp.)
Knotweed, prostrate (Polygonum aviculare)
Lespedeza, common (Lespedeza striata)
Marestail (Conyza Canadensis)
Medic, black (Medicago lupulina)
Mustard (Brassica spp.)
Oxalis, buttercup (Oxalis pes-caprae)
Pineappleweed (Matricaria matricarioides)
Pigweed, redroot (Amaranthus retroflexus)
Parsley-piert (Alchemilla arvensis)
Purslane, common (Portulaca oleracea)
Rocket, London (Sisymbrium irio)
Shepherdspurse (Capsella bursa- pastoris)
Speedwell, corn (Veronica arvensis)
Spurge, garden (Euphorbia hirta)
Spurge, prostrate (Euphorbia humistrata)
Spurge, spotted (Euphorbia maculate)
Woodsorrel, creeping (Oxalis corniculata)
Woodsorrel, yellow (Oxalis stricta)

#### **Use Directions for Terrestrial Non-crop Areas**

Applied as a preemergence spray, this product will control listed annual grasses and broadleaf weeds in terrestrial noncrop areas such as airports, farm yards, fence rows, highways, and railroad and utility rights-of-way. A list of grasses and broadleaf weeds is found in the "Other Grasses and Broadleaf Weeds Controlled" section above.

#### **Precautions for Non-crop Areas**

- · Do not make applications when weather conditions favor drift to non-target areas to prevent injury to foliage of non-target plants.
- · Do not graze livestock or feed forage cut from areas treated with this product.
- Before making an application to ornamentals within non-crop areas, be sure that the soil has settled firmly after transplanting by rainfall or irrigation, and that there are no cracks in the soil to prevent this product from contacting and injuring the plant roots.

#### **Directions for Application**

This product does not control established weeds. It must be applied to bare ground before weeds germinate. Optimum results are obtained if the soil is free of clods, weeds, and debris (i.e., leaves) before application. In addition, remove any existing weeds by handweeding, by cultivation, or with a postemergence herbicide.

In order to be effective, this product must be activated by 1/2 inch or more of rainfall or irrigation. Time applications of this product so that irrigation or rainfall occurs before germination of target weeds. After an application of this product, leave the soil undisturbed.

Applications of this product may be made at 3 to 4 month intervals as needed for extended preemergence weed control.

#### **Application Rates**

The table below provides use rates for different size areas. Do not exceed maximum use rates per year.

Amount of this product		
	Maximum rate per application	Maximum rate per year <sup>1</sup>
Quarts per Acre	2	. 6
Fl. oz. per 1,000 sq. ft.	1.5	4.5
Fl. oz. per 100 sq. ft.	0.15	0.45
Milliliters per 100 sq. ft.	4.4	13.2

<sup>1</sup> Maximum rate using split or sequential applications. In the state of New York, do not apply more than 2 qt./acre (0.5 lb. Al/acre) per year. Use is prohibited in Nassau and Suffolk counties.

#### **Use Directions for Ornamental Plantings and Containers**

Applied as a preemergence spray, this product will control the listed annual grasses and broadleaf weeds in landscaped areas planted with tolerant ornamental plants. This product will not control established weeds. A list of the tolerant plants is found in the table below. Although these ornamental plants have shown tolerance to this product, not all ornamental plant species or varieties have been tested, especially under different growing conditions. Test tolerance by applying this product to a few plants growing in a small area. Evaluate the plants for tolerance when grown under your local conditions before making applications of this product on a large number of plants.

#### **Precautions for Ornamental Plantings and Containers**

- Do not apply this product as an over-the-top broadcast spray to ornamentals to prevent injury to foliage that comes in contact with direct or indirect (drift) spray. If the spray solution does contact the foliage, there will be some cosmetic injury but the plants normally outgrow this condition rapidly and develop normally.
- · Apply this product only to ornamentals that are well established.
- Injury may result if applications are directed to bare roots of ornamental plants.
   Before making an application, be sure that the soil or planting mixes have settled firmly after transplanting and that there are no cracks in the soil to prevent this product from contacting and injuring the plant roots.
- · Do not soil-incorporate this product to prevent dilution of the product and cause injury to plant roots.
- To prevent further injury, do not apply this product to ornamental plants that have been weakened or are under stress (due to drought, excessive fertilizer or soil salts, flooding, frost damage, hail, wind or, winter injury, injury from previously applied pesticides or injury due to insects, nematodes or diseases).
- · Do not make applications when weather conditions favor drift to non-target areas to prevent injury to foliage of non-target plants.
- · Do not apply this product on grasses grown for seed.
- · Do not graze livestock or feed forage cut from areas treated with this product.
- · Do not apply this product in enclosed structures and greenhouses.
- · Do not apply another herbicide within 4 weeks of application of this product.

#### **Directions for Application**

This product does not control established weeds. It must be applied to bare ground before weeds germinate. Optimum results are obtained if the soil is free of clods, weeds, and debris (i.e., leaves) before application. In addition, remove any existing weeds by handweeding, by cultivation, or with a postemergence herbicide.

Applications of this product may be made in the spring, summer or fall. Repeat applications at 3 to 4 month intervals as needed for weed control. If applied in the fall, a sequential application of this product may be made the following spring.

Use a calibrated sprayer to apply this product. Mix this product with water and apply at 20 to 40 psi in a minimum of 1 gal. water per 1,000 sq. ft. (for 1.0-1.5 fl. oz. of this product per 1,000 sq. ft.).

Direct the product sprays to the base of the ornamentals and avoid spray contact or drift to plant foliage. After an application of this product, leave the soil undisturbed.

#### **Application Rates**

The table below provides use rates for different size areas. Do not exceed maximum use rates per year.

Amount of this product		
	Maximum rate per application	Maximum rate per year <sup>1</sup>
Quarts per Acre	2	6
Fl. oz. per 1,000 sq. ft.	1.5	4.5
Fl. oz. per 100 sq. ft.	0.15	0.45
Milliliters per 100 sq. ft.	4.4	13.2
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<sup>1</sup> Maximum rate using split or sequential applications. In the state of New York, do not apply more than 2 qt./acre (0.5 lb Al/acre) per year.

# **Tolerant Ornamentals**

Common Names (Botanical Names)	Tolerant Cultivars
Abelia, Dwarf (Abelia X grandiflora)	Nana
Ajuga (Ajuga reptans)	Bronze
(Ajuga genevensis)	Bronze Beauty
Almond, Flowering (Prunus gladulosa)	Biolize beauty
	<del>                                     </del>
Apple* (Malus pumila)	AP .
Arborvitae (Thuja occidentalis)	Nigra
	Pyramidalis
	Smaragh
	Techny
	Woodwardii
Arborvitae, Golden (Thuja orientalis)	
Aster, Chinese (Callistephus chinensis)	Dwarf Queen
Ash, Green (Fraxinus pennsylvanica)	
Ash, Mountain (Sorbus aucuparia)	
Ash, Purple (Fraxinus Americana)	
Azalea (Rhododendron spp.)	Brilliant
	Buccaneer
·	Carror
	Chimes (Belgian)
•	Elsie Lee
	Exbury
	Fashion
	Hardijzer Beauty
	Hershey Red
	Higasa
	Hinocrimson
	Holland (hybrid)
•	Marion Lee
	Northern Lights
· ·	Orange Cup
	Orchid Lights
	Snow
	Southern Charm
Azalea, Flame (Rhododendron calendulaceum)	
Azalea, Kirishima	
Bamboo, Heavenly	
Barberry (Berberis thunbergii)	Aurea
	Dwarf Pigmy
	Green
	Kobold
	Pygmy Red
	Rose Glow
Barberry, Purple	Atropurpurea
Basket flower (Gaillardia grandiflora)	
Beach grass (Ammophila breviligulata)	
Bearberry (common) (Arctostaphylos uva-ursi)	Massachusetts
Bee Balm (Monarda didyma)	
Begonia (Begonia spp)	
Birch, River (Betula nigra)	
District (Dotala Ingla)	

Common Names (Botanical Names)	Tolerant Cultivars
Blackeyed Susan (Rudbeckia hirta)	Goldstrum
Blanket Flower (Gaillardia spp.)	
Blue Fescue (Festuca ovina)	
Blueberry* (Vaccinium spp.)	Bluecrop
• • • • • • • • • • • • • • • • • • • •	Blue Jay
	Jersey
	North Blue
·	Northland
Bottlebrush (Callistemon citrinus)	
Boxwood, Japanese	Japonica
Boxwood, Weller (Buxus sempervirens)	
Broom (Cytisus spp.)	Moonlight
(Genista pilosa)	Vancouver Gold
Bugle Carpet	741103437 4010
Camellia (Camellia japonica)	Debutante
	Mathotiana Supreme
(Camellia sasangua)	Chansonette
Candy Tuft (Iberis spp.)	Snow White
Carex, Variegated (Carex)	Oldw William
Cedar, Red (Juniperus virginiana)	
Celosia (Celosia spp)	
Centaura (Centaurea Montana)	Scarlet Plumosa
Cockscomb, Plumosa (Celosia cristata)	Red Kewpie
Coleus (Coleus blumei)	TIOU NOMPO
Columbine (Aguilegia spp)	· ·
Copper leaf (Acalypha wilkesiana)	
Coreopsis (Coreopsis spp.)	Moonbeam
Corn Flower (Centaurea spp.)	, literature and the second se
Cotoneaster (Cotoneaster apiculatus)	
Coyotebrush (Baccharis pilularis)	
Cycads (Cycas revolute)	
Cypress, bald (Taxodium distichum)	
Cypress, Italian (Cupressus sempervirens)	Glauca
Cypress, Japanese False (Chamaecyparis obtuse)	Gracilis
Cypress, Leyland (Cupressocyparis leylandii)	VI SUITO
Daffodil (Narcissus spp)	King Alfred
Daylilly (Hemerocallis spp.)	Aztec Gold
- Lyy (1.10.11.000.11.10 opp.)	Bright Yellow (hybrid)
	Single Gold (Evergreen)
	Wilsonis yellow
Dianthus (Sweet William) (Dianthus spp.)	Tribution folioti
Delphinium (Delphinium spp)	Magic fountain
Dogwood (Cornus Florida)	The second secon
Dogwood, American (Cornus sericea)	Flavarimaea
Douglas Fir (Pseudotsuga menziesii)	) idvalilided
Dusty Miller (Senecio cineraria)	
Elm, Drake (Ulmus parvifolia)	
Eini, Diake (Unitus parviidita)	

Common Names (Botanical Names)	Tolerant Cultivars
Euonymus (Euonymus fortunei)	Argenteo-variegata
. ·	Auereo-marginata
	Colorata
	Emerald Gaiety
	Emerald eN Gold
	Gold Edge
	Gold Princess
	Silver King
	Tricolor
	Vegetus
Fan Palm, European (Chamaerops humilis)	
Fan Palm, Mexican (Washingtonia robusta)	
Fern (various) (Asparagus spp.)	
Fescue (Festuca glauca)	
Fetterbush (Leucothoe fontanesiana)	Rainbow
Ficus (Ficus retusa)	Nitidia
Fir Fraser (Abies fraseri)	
Forsythia (Forsythia X intermedia)	Arnold Dwarf
	Bronxensis Dwarf
	Lynwood Gold
•	Meadowlark
(Spring Glory)	Weeping
Fountain grass (Pennisetum setaceum)	
Fuchsia (Fuchsia spp)	
Galium (Galium ordoratum)	
Gardenia (Gardenia jasminoides)	Mystery
dardona (dardona jasimiolaes)	Radicans
Geranium (Pelargonium X hortorum)	reducatio
Gum (Eucalyptus citriodora)	
Hawthorn (Crataegus spp.)	Cockspur White
Transiti (Crataegus Spp.)	Crimson Cloud
	Enchantress
	Jack Evans
	Washington White
Heather, Twisted (Erica cinerea)	Mediterranean Pink
Hemlock, Canada (Tsuga Canadensis)	Wedneralean Filik
Hibiscus (Hibiscus spp.)	Blue Bird
Tiloiscus (Hibiscus Spp.)	Brilliant
	Hula Girl
Holly (llex spp)	Blue Boy
Hony (liex spp)	Blue Girl
//lov V magazina)	·
(Ilex X meserveae)	Burfodii
	China Girl
	Compacta
	Forsteri
·	Hellerie
	Japanese Northern Beauty
,	Needlepoint
	Nellie R. Stevens
Ilex X attenuate	Savannah

<sup>\*</sup> Ornamental species only. DO NOT USE ON FOOD-PRODUCING TREES AND PLANTS.

#### STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed or seed by storage or disposal,

**PESTICIDE STORAGE:** Store this product only in its original container in a dry, cool secured storage area. Store this product above 32°F to avoid crystallization. If crystals form or product freezes, move product to area with ambient temperature above 32°F and shake well until crystals have dissolved.

SPILL: In case of spill, observe all protective and safety precautions when cleaning up spills. Dispose of material according to "product disposal" directions listed below.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

**EMPTY CONTAINER DISPOSAL:** Do not reuse emptied container. Observe all label safeguards until container is triple rinsed. Empty container retains vapor and product residue. Triple rinse container, then puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

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(NEW)