

# PIN-DEE<sup>TM</sup> 3.3 T & O Herbicide

For use in Turfgrasses, Ornamentals, Landscape or Grounds Maintenance, Non-bearing Fruit and Nut Crops and Vineyards, and Noncropland.

### **ACTIVE INGREDIENT:**

Pendimethalin	37.4%
OTHER INGREDIENTS*:	62.6%
TOTAL:	100.0%

This product contains 3.3 pounds of pendimethalin per gallon. \*Contains aromatic naphtha.

# KEEP OUT OF REACH OF CHILDREN CAUTION See FIRST AID Below

### EPA REG. NO. 19713-590 EPA EST. NO. 19713-XX-XXX Net Content: FIRST AID

### IF SWALLOWED:

- Call a poison control center or doctor immediately for treatment advice.
- · Do not give any liquid to the person
- Do not induce vomiting unless told to by a poison control center or doctor.
- Do not give anything by mouth to an unconscious or convulsing person.

### IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15 to 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 ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.
- 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 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 information on this pesticide product (including health concerns, medical emergencies or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378.

**Note To Physician:** Contains aromatic naphtha - vomiting may cause aspiration pneumonia. Because of increased risk of chemical pneumonia or pulmonary edema caused by aspiration of the hydrocarbon solvent, vomiting should be induced only under professional supervision.

### **PRECAUTIONARY STATEMENTS** Hazards to Humans and Domestic Animals

**CAUTION:** Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing.

**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.

### NON-WPS USES:

Applicators and other handlers (except Mixers/Loaders) who handle this pesticide for any use not covered by the Worker Protection Standard (WPS), 40 CFR Part 170 C in general, only agricultural plant uses are covered by the WPS - must wear: Long-sleeved shirt and long pants, chemical-resistant gloves such as nitrile rubber  $\ge 8$  mils, shoes plus socks.

**Mixers and Loaders must wear:** Long-sleeved shirt and long pants, or coveralls, chemical-resistant gloves, such as barrier laminate, butyl rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, or viton  $\geq$  14 mils, shoes plus socks.

### WPS USES:

Applicators and other handlers who handle this pesticide for any use covered by the WPS, 40 CFR part 170 - in general, agricultural-plant uses are covered - must wear: Long-sleeved shirt and long pants, chemical-resistant gloves, such as barrier laminate, butyl rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, or viton  $\geq$  14 mils, shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### USER SAFETY RECOMMENDATIONS

**Users should:** 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) 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

This product is toxic to fish. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift or runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites. Do not contaminate water when disposing of equipment washwater or rinsate.



### INFORMATION AND USE PRECAUTIONS

Apply PIN-DEE 3.3 T & O only as specified on this label.

This product is formulated as an emulsifiable concentrate containing 3.3 pounds of active Pendimethalin per gallon.

This product is a selective soil applied herbicide for preemergence control of most annual grasses and certain broadleaf weeds as they germinate, in any Turfgrass sites (lawns, sod, turf areas) such as grounds or lawns around residential and commercial establishments, airports, athletic fields, cemeteries, golf courses, houses of worship, military and other institutions, multifamily dwellings, parks, picnic grounds, prairiegrass areas, roadsides, schools, and sod farms.

This product can also be used in and around field, liner, and container grown ornamental nurseries; established landscape ornamentals and ornamental gardens; listed groundcovers; nonbearing fruit and nut trees; conifers and hardwood seedling nurseries; and for tree plantation site preparation and maintenance.

Also, this product can be applied for general grounds maintenance around areas such as alleyways, bike and jogging paths, buildings, driveways and roadsides, markers and fence lines, mulch beds, parking lots, stone gardens and gravel yards, vacant lots and other similar areas. It may be used under asphalt or concrete treatments as part of a site preparation program.

This product is also used for preemergence control of most annual grasses and certain broadleaf weeds as they germinate in any noncropland area such as bridge abutments and approaches, delineators, fence rows, highway guardrails, highway and pipeline rights-of-way, paved or gravel surfaces, petroleum tank farms, pumping installations, railroad, sign posts, storage areas, utility, utility substations, and windbreaks and shelterbelts; and other similar areas where weed control is desired.

This product will not control established weeds.

Established weeds should be controlled before applying this product or by using this product in conjunction with an appropriate postemergence herbicide. Unusually cold, excessively wet, or hot and dry conditions that delay germination or extend germination over a long period of time can reduce weed control.

One-half inch of rainfall or its equivalent in sprinkler irrigation following application of this product or tank mix combinations of this product improves weed control. Erratic weed control may result in the absence of rainfall or irrigation within 30 days of application of this product.

Follow label directions of this product or tank mix combinations of this product carefully to avoid crop injury. Over-application can result in crop stand loss, crop injury, or excessive soil residues. Uneven application, improper soil incorporation, or soil incorporation deeper than what is directed can decrease weed control and/or cause crop injury. Seedling diseases, cold weather, excessive moisture, shallow or deep planting, low or high soil pH, high soil salt concentration, or drought can weaken seedlings and plants and increase the possibility of crop damage and/or reduce crop yields from this product.

This product may cause temporary discoloration of sprayed surfaces. Rinse immediately to avoid staining. Spray colorants or dyes can be added to alter the color of the spray solution to match the treated surfaces.

**Uses with Other Products (Tank Mixes):** When tank mixing this product with other herbicides, all applicable directions, restrictions, and precautions for the additional herbicides must be followed. Use the most restrictive limitations stated on the product labels. Before initiating full tank mix application, the physical compatibility of the proposed mixture should be evaluated on a small scale of recommended spray mixture concentrations. Also, such mixtures should be evaluated for vegetation control before expanding commercial use.

### MIXING INSTRUCTIONS

### Ground Driven Sprayer:

- 1. Fill tank one-half to three-quarters full with clean water.
- 2. Add this product to the partially filled tank while agitating and then fill the remainder of the tank with water.
- Maintain continuous agitation while adding this product and until spraying is completed. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential before spraying is resumed. Continue agitation while spraying.
- If this product is to be used in tank mixtures with other registered herbicides, then follow directions on the labels of those products which recommend tank mixing.

### **Backpack Sprayer:**

- 1. Begin with a clean spray tank.
- Fill the spray tank one-half full with clean water and add the required amount of this product to the sprayer.

- 3. Cap sprayer and agitate to ensure mixing.
- 4. Uncap sprayer and finish filling tank to desired level.
- 5. Cap sprayer and agitate once again.

During application it is desirable to agitate the mixture on occasion to ensure mixing. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential before spraying is resumed.

**Liquid Fertilizers:** Small quantities should always be tested using a simple jar test. Prior to mixing, add the required amount of this product to half filled spray tank while agitating then add the fertilizer product. Complete filling spray tank to desired level.

**Dry Bulk Fertilizers:** This product may be impregnated on dry bulk fertilizers. This product/Dry Bulk Fertilizer mixtures will provide weed control equal to that provided by the same rates of this product applied in water, when applied as directed.

### SPRAYING INSTRUCTIONS

Apply with properly calibrated ground equipment in at least 40 gallons of water per acre to provide uniform spray distribution. Low pressure (i.e. 20 to 40 psi) sprayers are recommended. Maintain continuous agitation during spraying with good mechanical or bypass agitation. Check sprayer routinely for proper calibration. Avoid overlaps that will increase rates above those recommended. Avoid application when winds may cause drift.

Avoid unintentional contact of spray solution with driveways, stone, wood or other porous surfaces. Rinse immediately to avoid staining.

### **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. DO NOT apply this product through any type of irrigation system.

DO NOT apply this product in greenhouses, shadehouses or other enclosed structures.

Drexel Chemical Company does not recommend or authorize the use of this product in manufacturing, processing or preparing custom blends with other products for application to Turf or Ornamentals.

Observe all use precautions and limitations in this label and the labels of products used in combinations with this product. The use of this product not consistent with this label can result in injury to crops, or may result in poor weed control.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, 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 (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the REI of 24 hours.

PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls, chemical-resistant gloves such as barrier laminate, butyl rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, or viton  $\geq$  14 mils, and shoes plus socks.

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the WPS 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. Do not enter or allow others to enter the treated area until sprays have dried.

### TURFGRASSES

	RATES OF THIS PRODUCT		
TYPES OF TURFGRASS	WEEDS CONTROLLED	Pints/ Acre	Ounces/ 1000 sq. ft.
Cool Season	Barnyardgrass,	3.6 to 4.8	1.3 to 1.8
Grasses: Fescue (fine), Fescue (tall), Kentucky	Crabgrass, Evening primrose, Fall panicum, Foxtail, Hop clover,	5.0 10 4.0	1.0 10 1.0
bluegrass, Perennial ryegrass	Knotweed, Oxalis, <i>Poa annua,</i> Prostrate spurge, Purslane		
	USE INSTRUCTIONS prior to weed germi tended weed control is expected to be hear 2.5 to 3.6 pints per ac sq. ft.) after 5 to 8 we	nation in Spr or where wee vy, repeat appl cre (1 to 1.3 o	ing. For ex- d infestation ication using
	For Residential Turf* Uses Only: Goosegrass	3.6 to 4.8	1.3 to 1.8
	USE INSTRUCTIONS: Use as initial application prior to weed germination in Spring. If the lower rate was used initially or for extended control, repeat ap- plication at 3.6 pts./acre (1.3 ozs./1000 sq. ft.). Do not exceed a maximum of 4.8 pts./Acre per application for use on residential Turfgrass. * <b>Note:</b> Residential turf is defined as turf in any residential situation as well as schools, parks and playgrounds.		
	For Commercial or Other Non- Residential Turf: Goosegrass	3.6 to 7.2	1.3 to 2.6
	USE INSTRUCTIONS: Use as initial application prior to weed germination in Spring. If the lower rate was used initially or for extended control, re- peat application at 3.6 pts./acre (1.3 ozs./1000 sq. ft.). Do not exceed a maximum of 7.2 pts./Acre per application for use on commercial or other non-residential Turfgrass.		
	Chickweed, Corn speedwell, Cudweed, Henbit, Lawn burweed, <i>Poa</i> <i>annua</i>	3.6 to 4.8	1.3 to 1.8
	USE INSTRUCTIONS: Apply in late Summer or early Fall prior to weed germination.		
Warm Season Grasses: Bahiagrass,	For Residential Turf* Uses Only: Barnyardgrass,	3.6 to 4.8	1.3 to 1.8
Bermudagrass, Buffalograss, Centipedegrass,	Crabgrass, Evening primrose, Fall panicum, Foxtail,		
Fescue (tall), St. Augustine- grass,	Hop clover, Knotweed, Oxalis, <i>Poa annua</i> ,		
Zoysiagrass	Prostrate spurge, Purslane		(Continued)
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### TURFGRASSES (Con't.)

		RATES ( PROI	
TYPES OF	WEEDS	Pints/	Ounces/ 1000
TURFGRASS	CONTROLLED	Acre	sq. ft.
	USE INSTRUCTIONS: Use as initial application prior to weed germination in Spring. Repeat ap- plication at 2.5 to 3.6 pints per acre (1 to 1.3 ozs. per 1000 sq. ft.) after 5 to 8 weeks if necessary. Do not exceed a maximum of 4.8 pts./Acre per application for use on residential Turfgrass. *Note: Residential turf is defined as turf in any residential situation as well as schools, parks and playgrounds.		
	Goosegrass 3.6 1.3		
	USE INSTRUCTIONS: Apply prior to weed ger- mination in Spring. Make a second application 6 to 8 weeks later. For extended control, an addi- tional application of 3.6 pts./acre (1.3 ozs./1000 sq. ft.) may be made 8 weeks after the second application.		
	Chickweed, Corn speedwell, Cud- weed, Henbit, Lawn burweed, <i>Poa</i> <i>annua</i>	2.6 to 4.8	1.3 to 1.8
	USE INSTRUCTIONS early Fall prior to wee	ed germination	l.

Efficacy of this product will be improved if application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. Erratic weed control may result if this product is not activated by rainfall or irrigation within 30 days.

To prevent establishment of weeds along the edges of lawns, it may be necessary to overlap the spray 3 to 6 inches onto sidewalks or driveways, etc. Rinse pavement immediately to avoid temporary discoloration.

### THIS PRODUCT IN TANK MIXTURE

To control emerged weeds in Turfgrasses, this product can be mixed with postemergence herbicides. To control emerged annual grass, this product can be mixed with Acclaim<sup>®</sup> Extra or MSMA whereas broadleaved weeds can be controlled using Trimec<sup>®</sup>, Three-Way<sup>™</sup>, 2,4-D, and other similar products.

Before tank mixing, a simple jar test is recommended to insure compatibility of herbicides.

Always read the companion product label. Follow all use precautions and restrictions that apply to each product used. Always follow the most restrictive label.

### USE PRECAUTIONS FOR TURFGRASS

- 1. Use on well established Turfgrass with a dense and uniform stand.
- 2. On newly planted areas, application should not be made until the Turfgrass has filled in and has been mowed at least four times.
- On Turf that has been thinned or damaged due to Winter injury, excessive moisture, etc., allow Turf to recover prior to application.
- Applications made to overseeded warm-season Turfgrasses may cause thinning or injury of the overseeded species.
- 5. Do not use on greens or injury may occur.
- 6. Delay reseeding or Winter overseeding of treated Turfgrass for at least 3 months following the last application of this product
- 7. Delay sprigging Turfgrass for 5 months after application of this product.

### INDUSTRIAL (UNIMPROVED) TURF

# (Rights-Of-Way, Roadsides, Construction Sites, Parks, Substations, Lots, or Similar Areas)

Industrial, or unimproved turf areas often have a different spectrum of weeds to be controlled than those found in fine Turf. This product will control annual grasses and broadleaf weeds mentioned in *"TURF-GRASSES"* section of this label as well as the following weeds that might germinate in established grasses.

Annual spurge Browntop panicum Carpetweed	London rocket Lovegrass
Crowfootgrass	Mexican sprangletop Pennsylvania smartweed
Fiddleneck	Pigweed
Field sandbur	Puncturevine
Filaree	Red sprangletop
Florida pusley	Shepherdspurse
Itchgrass	Signalgrass
Johnsongrass (from seed)	Texas panicum
Junglerice	Velvetleaf
Kochia	Witchgrass
Lambsquarters	Woolly cupgrass

Apply before weeds germinate. To control established weeds, 2,4-D, MSMA, or similar postemergence herbicides may be tankmixed with this product. Apply according to label instructions for the respective products and follow the most restrictive label.

### **ORNAMENTALS**

This product can be applied for preemergence weed control around and over the top of the established plants listed below. However, not all varieties or strains of the plants listed have been tested. Unintentional consequences such as crop injury may result because of certain environmental or growing conditions, manner of use or application. Therefore, before treating a large number of plants, spray a few plants and observe for plant damage prior to full scale application.

GROUND COVERS		
Common Name	Scientific Name	
Ajuga	Ajuga reptans	
Capeweed	Arctotheca calendula	
Cinquefoil, Spring	Potentilla verna	
Daisy, Trailing African	Osteospermum fruticosum	
Gazania	Gazania splendens	
Iceplant, Large Leaf	Carpobrotus edulis	
Ivy, English	Hedera helix	
Ivy, Geranium	Pelargonium peltatum	
Jasmine, Asiatic	Trachelospermum asiaticum	
Jasmine, Primrose	Jasminum mesnyn	
Mondograss	Ophiopogon japonica	
Myoporum	Myoporum parviflolium	
Pachysandra	Pachysandra terminalis	
Potentilla	Potentilla fruticosa	
Rose-of-Sharon	Hypericum calycinum	
Wintercreeper	Euonymous fortunei	

### **ORNAMENTAL GRASSES**

Common Name	Scientific Name
Beach grass	Ammophila breviligulata
Fescue, blue	Festuca ovina
Fescue, sheep	Festuca ovina
Fountain grass	Pennisetum setaceum
Pampas grass	Cortaderia selloana
Reed canary grass	Phalaris arundinacea
Reed, giant	Arundo spp.
Ribbon grass	Phalaris arundinacea
Tufted hair grass	Deschampsia caespitosa
Fescue, sheep Fountain grass Pampas grass Reed canary grass Reed, giant	Festuca ovina Pennisetum setaceum Cortaderia selloana Phalaris arundinacea Arundo spp. Phalaris arundinacea

### **ORNAMENTAL SHRUBS**

Common Name	Scientific Name
Abelia, glossy	Abelia grandiflora
Aucuba, gold	Aucuba japonica
Azalea	Rhododendron spp.
Bamboo, heavenly	Nandina domestica
Barberry	Berberis gladwynensis
Barberry, Japanese	Berberis thunbergii
Blue indigo bush	Dalea gregii
Bottlebrush, lemon	Callistemon citrinus
Boxwood, common	Buxus sempervirens
Boxwood, Japanese	Buxus microphylla
Camellia	Camellia japonica
Cape jasmine	Gardenia jasminoides
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### **ORNAMENTAL SHRUBS**

ORNAMENTAL SHRUBS		
Common Name	Scientific Name	
Cordyline	Cordyline spp.	
Correa	Correa spp.	
Cotoneaster	Cotoneaster apiculatus	
Cotoneaster, bearberry Cotoneaster, rock	Cotoneaster dammeri Cotoneaster horizontalis	
Cypress, Italian	Cupressus sempervirens	
Cypress, leyland	Cupressocyparis leylandii	
Deutzia, slender	Deutzia gracilis	
Dogwood, red twig	Cornus sericea	
Elaeagnus Escallonia	Elaeagnus ebbingei Escallonia fradesii	
Euonymus	Euonymus fortunei	
Euonymus, golden	Euonymus japonica	
Euonymus, winged	Euonymus alata	
Firethorn	Pyracantha coccinea	
Forsythia, border Fragrant olive	Forsythia intermedia Osmanthus fragrans	
Fuschia, California	Zauschineria californica	
Gardenia	Gardenia jasminoides	
Hawthorne, Indian	Raphiolepis indica	
Hibiscus	Hibiscus syriacus	
Holly, Chinese Holly, Japanese	llex cornuta Ilex crenata	
Holly, Fosters	llex attenuata 'Fosteri'	
Holly, savannah	llex attenuata	
Holly, yaupon	llex vomitoria	
Honeysuckle, bush	Diervilla lonicera	
Juniper	Juniperus spp.	
Juniper, Chinese Juniper, shore	Juniperus chinensis v. pfitzer Juniperus conferta	
Juniper, trailing	Juniperus horizontalis	
Laurel, cherry	Prunus laurocerasus	
Laurel, Mountain	Kalmia latifolia	
Laurel, otto luyken	Prunus laurocerasus	
Laurel, schipka Laurustinus	Prunus schipkanesis Viburnum tinus	
Lavender, English	Lavandula angustifolia	
Leucothoe	Leucothoe fontanesiana	
Leucothoe, coast	Leucothoe axillaris	
Lilac, cut-leaf	Syringa laciniata	
Lily-of-the-Nile Mahonia	Agapanthus africanus Mahoria aguifolium	
Manonia Mock orange	Pittosporum tobira	
Myrtle, compact	Myrtus communis	
Myrtle, wax	Myrica cerifera	
Nandina	Nandina domestica	
Oleander	Nerium oleander Mahonia aquifolium	
Oregon grape Osmanthus	Osmanthus fragrans	
Palm, European fan	Chamaerops humillis	
Palm, Mediterranean fan	Chamaerops spp.	
Phlox, prickly	Leptodactylon californicum	
Photinia, fraser	Photinia X Fraseri	
Pieris, Japanese Pine, mugo	Pieris japonica Pinus mugo	
Plum, natal	Carissa grandiflora	
Privet, California	Ligustrum ovalifolium	
Privet, glossy	Ligustrum lucidum	
Privet, variegated	Ligustrum sinensis	
Privet, waxleaf Pyracantha	Ligustrum japonicum Pyracantha coccinea	
Quince, flowering	Chaenomeles japonica	
Ranger, Texas	Leucophyllum frutescens	
Redroot	Ceanothus spp.	
Rhododendron	Rhododendron spp.	
Robira Spice plant	Pittosporum tobiri Illicium popuiflorum	
Spice plant Spiraea	Illicium parviflorum Spiraea vanhouttei	
Spiraea, anthony waterer	Spiraea X bumalda	
Spiraea, Japanese	Spirea japonica	
Sweet bay	Laurus nobilis	
Trumpet bush	Tecoma stans	
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### **ORNAMENTAL SHRUBS**

Common Name	Scientific Name
Verbena, lemon	Aloysia triphylla
Viburnum	Viburnum suspensum
Vitex	Vitex spp.
Weigela	Weigela florida
Wild lilac	Ceanothus spp.
Xylosma	Xylosma congestum
Yellowbells	Tecoma stans
Yew*	Taxus media
Yew, Japanese*	Taxus cuspidata
Yew, Southern	Podocarpus macrophyllus
Yucca, Adam's	Yucca filamentosa
Yucca, weeping	Yucca pendula

Applications should not be made during Spring growth or injury to terminals may occur.

#### **ORNAMENTAL TREES**

Common Name	Scientific Name
Alder, European black	Alnus glutinosa
Apple	Malus spp.
Arborvitae, American	Thuja occidentalis
Arbutus	Arbutus spp.
Ash, red	Fraxinus pennsylvanica
Ash, white	Fraxinus americana
Aspen, bigtooth	Populus grandidentata
Aspen, quaking	Populus tremuloides
Basswood	Tilia spp.
Birch, European weeping	Betula pendula
Birch, river	Betula nigra
Buckeye, red	Aesculus pavia
Cedar, white	Thuja occidentalis
Chamaecyparis, boulevard	Chamaecyparis pisifera
Cherry, black	Prunus serotina
Cherry, choke	Prunus virginiana
Cherry, kwanzan	Prunus serrulata
Cherry, nanking	Prunus tomentosa
Cottonwood	Populus deltoides
Crabapple	Malus spp.
Crepe myrtle	Lagerstroemia indica
Cryptomeria, Japanese cedar	Cryptomeria japonica
Cypress, bald	Taxodium distichum
Cypress, leyland	Cupressocyparis leylandii
Dogwood, flowering	Cornus florida
Dogwood, Korean	Cornus kousa
Dogwood, silky	Cornus amomum
Dogwood, shrub	Cornus spp.
Elm	Ulmus japonica
Fir, balsam	Abies balsamae
Fir, douglas	Pseudotsuga menziesii
Fir, fraser	Abies fraseri
Fir, white	Abies concolor
Franklinia	Franklinia spp.
Ginkgo	Ginkgo biloba
Gum, black	Nyssa sylvatica
Gum, sour	Nyssa sylvatica
Haw, black	Viburnum prunifolium
Hawthorn	Crataegus spp.
Hemlock, Canada	Tsuga canadensis
Hemlock, Eastern	Tsuga canadensis
Holly, American	llex opaca
Honeylocust	Gleditsia triacanthos
Lilac, common	Syringa vulgaris
Lilac, Japanese tree	Syringa reticulata
Linden	<i>Tilia</i> spp.
Magnolia, saucer	Magnolia soulangiana
Magnolia, Southern	Magnolia grandiflora
Magnolia, star	Magnolia stellata
Maidenhair tree	Ginkgo biloba
Maple, Norway	Acer plantanoides
Maple, Japanese	Acer palmatum
Maple, red	Acer rubrum
Maple, sugar	Acer saccharum
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### **ORNAMENTAL TREES**

Freesia Heather, dwarf

Hosta

Lily

Fern, leatherleaf

Liriope, creeping

Orchid, peacock Peony, Chinese

Montbretia

Wisteria

Zephyr lily

Liriope, variegated

ORNAMENTAL TREES			
Common Name	Scientific Name		
Nannyberry, rusty	Viburnum rufidulum		
Oak, chinquapin	Quercus muehlenbergii		
Oak, live	Quercus virginiana		
Oak, pin	Quercus palustris		
Oak, red	Quercus rubra		
Oak, swamp chestnut	Quercus michauxii		
Oak, water	Quercus nigra		
Oak, white	Quercus alba		
Oak, willow	Quercus phellos		
Olive	Olea europaea		
Palm date	Phoenix spp.		
Palm, fan	Washingtonia spp.		
Palm, pindo	<i>Butia</i> spp. <i>Washingtonia</i> spp.		
Palm, Washington Peach	Prunus persica		
Pear, bradford	Pyrus calleryana 'bradford'		
Pecan	Carya illinoensis		
Pine, Austrian	Pinus nigra		
Pine, Italian stone	Pinus pinea		
Pine, loblolly	Pinus taeda		
Pine, monterey	Pinus radiata		
Pine, red	Pinus resinosa		
Pine, scotch	Pinus sylvestris		
Pine, slash	Pinus elliottii		
Pine, Virginia	Pinus virginiana		
Pine, white	Pinus strobus		
Plum, purple leaf	Prunus cerasifera		
Poplar, black	Populus nigra		
Redcedar, Eastern	Juniperus virginiana		
Redcedar, Western	Thuja plicata		
Red ironbark	Eucalyptus sideroxylon 'rosea'		
Redwood, dawn	Metasequoia glytostroboides		
Sequoia, giant	Sequoiadendron giganteum		
Serviceberry	Amelanchier laevis		
Sourwood	Oxydendrum arboreum		
Spruce, Colorado blue	Picea pungens Biasa glausa 'albertiana'		
Spruce, dwarf Alberta	Picea glauca 'albertiana' Picea abies		
Spruce, Norway Spruce, white	Picea glauca		
Sweetgum	Liquidambar styraciflua		
Sycamore	Platanus occidentalis		
Trachycarpus	Trachycarpus spp.		
Tulip tree	Liriodendron tulipifera		
Walnut, black	Juglans nigra		
Willow, weeping	Salix babylonica		
Yellowwood	Cladrastis lutea		
PERENNIALS			
Common Name	Scientific Name		
Bleeding heart	Dicentra spectabilis		
Calla lily	Zantedeschia aethiopica		
Canna, common garden	Canna generalis 'Lucifer'		
Chincherinchee	Ornithogalum thyrsoides		
Crinum Lily	Crinum spp.		
Fern, asparagus	Asparagus officinalis		
Earn loatharlaaf	Pumphra adjantiformia		

This product may not be used on plant species not listed on this label. The suitability for such uses should be determined by treating a small number of such plants at the labeled rate. Treated plants should be evaluated 1 to 2 months following treatment for possible injury. The user assumes responsibility for any crop damage or other liability. Do

Rumohra adiantiformis Freesia x hybrida

Crocosmia crocosmiiflora Acidanthera bicolor

Calluna vulgaris

Liriope spicata

Liriope muscari

Paeonia lactiflora

Wisteria spp. Zephyranthes spp.

Hosta spp.

Lillium spp.

not treat plants grown for food or feed. Do not use treated plants for food or feed.

### WEEDS CONTROLLED

This product is used for preemergence control of the weeds listed below.

This product will not control established weeds.

If weeds should develop prior to activation of herbicide, shallow cultivate to destroy existing weeds or, where practical, remove by hand. When cultivating for any reason, it should be shallow. This product may be used in conjunction with herbicides registered for postemergence use (i.e. glyphosate or Finale) for the control of established weeds. Do not apply sprays containing glyphosate or Finale over the top of desirable plants.

Application of this product may be followed by any registered herbicide to control weeds not listed on this label.

WEEDS C	WEEDS CONTROLLED	
Common Name	Scientific Name	
Barnyardgrass	Echinochloa crus-galli	
Bluegrass, annual	Poa annua	
Burweed, lawn	Soliva pterosperma	
Carpetweed	Mollugo verticillata	
Chickweed, common	Stellaria media	
Chickweed, mouseear	Cerastium vulgatum	
Clover, hop	Trifolium procumbens	
Crabgrass	Digitaria spp.	
Crowfootgrass	Dactyloctenium aegyptium	
Cudweed	Gnaphalium spp.	
Eveningprimrose	Oenothera biennis	
Fiddleneck	Amsinckia intermedia	
Filaree	Erodium spp.	
Foxtail, giant	Setaria faberi	
Foxtail, green	Setaria viridis	
Foxtail, yellow	Setaria glauca	
Goosegrass	Eleusine indica	
Henbit	Lamium amplexicaule	
Itchgrass	Rottboellia exaltata	
Johnsongrass (from seed)	Sorghum halepense	
Junglerice	Echinochloa colona	
Knotweed, prostrate	Polygonum aviculare	
Kochia	Kochia scoparia	
Lambsquarters	Chenopodium album	
Lovegrass (from seed)	Eragrostis spp.	
Panicum, browntop	Panicum fasciculatum	
Panicum, Fall	Panicum dichotomiflorum	
Panicum, Texas	Panicum dichotorimorum	
Pigweed	Amaranthus spp.	
Puncturevine	Tribulus terrestris	
Purslane	Portulaca oleracea	
Pusley, Florida	Richardia scabra	
Rocket, London	Sisymbrium irio	
Sandbur, field	Cenchrus incertus	
Shepherdspurse	Capsella bursa-pastoris	
Signalgrass	Brachiaria platyphylla	
Smartweed, Pennsylvania	Polygonum pensylvanicum	
Speedwell, corn	Veronica arvensis	
Sprangletop, Mexican	Leptochloa uninervia	
Sprangletop, red	Leptochloa filiformis	
Spurge, annual	Euphorbia spp.	
Spurge, prostrate	Euphorbia humistrata	
Velvetleaf (buttonweed)	Abutilon theophrasti	
Witchgrass	Panicum capillare	
Woodsorrel, yellow	Oxalis stricta	
Woolly cupgrass	Eriochloa villosa	

### **APPLICATION RATES**

Apply this product for preemergence weed control using broadcast spray equipment using the following rates:

APPLICATION RATES		
Duration of Control*	This Product (qts./A)	This Product (fl. ozs./1000 sq. ft.)
Short Term (2 to 4 months)	2.4	1.8
Long Term (6 to 8 months)	4.8	3.6

**For Hand-held Spray Equipment:** Refer to the "Application Rates" table to determine the amount of this product to be applied per 1000 square feet. The amount of water to be used for the application should be sufficient for thorough coverage without runoff. Calibration of backpack or other hand-held equipment will vary with each operator. Determine the amount of water needed to treat 1000 square feet before mixing the spray solution. Refer to "*MIXING INSTRUCTIONS*" section of this label.

The efficacy of this product will improve if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. Erratic weed control will result if this product is not activated by rainfall or irrigation within 30 days.

### THIS PRODUCT IN TANK MIXTURE FOR ORNAMENTALS

This product can be tank mixed with glyphosate, Finale<sup>™</sup>, Ornamec<sup>®</sup>, Gallery<sup>™</sup>, simazine and other similar herbicides to control emerged weeds in ornamentals. Do not apply tank mixtures containing glyphosate or Finale over the top of ornamental plants. Before tank mixing, a simple jar test is recommended to insure compatibility of herbicides.

Always read the companion product label. Follow all use precautions and restrictions that apply to each product used. Always follow the most restrictive label.

### USE RESTRICTIONS AND PRECAUTIONS FOR ORNAMENTALS

- 1. Do not apply this product in greenhouses, shadehouses or other enclosed structures.
- 2. Apply this product to established plantings.
- 3. Do not make applications to grafted (or budded) liners at any time.
- 4. Do not make over-the-top applications to liners or transplants.
- 5. Do not apply this product to liners or transplants during bud break or at time of first flush of new growth.
- When making applications to established liners or transplants, direct sprays to the soil.
- Do not allow spray to cover or penetrate foliage and/or buds or injury is likely to occur.
- 8. Delay application to seedbeds, transplant beds or liners until plants have become well rooted. Allow soil or planting mixes to settle firmly following transplanting before applying this product. Do not allow direct contact of this product with roots.
- 9. On established rootstock, application of this product can be made before budding/grafting the plants.
- 10. Plant only those plant species listed on this label into soil treated the previous season with this product to avoid plant injury.
- 11. For container grown ornamentals, delay first application of this product to bareroot liners 2 to 4 weeks after transplanting.
- 12. It is recommended that treated plants be evaluated for 1 to 2 months prior to making application to a large number of plants. The user assumes responsibility for any crop damage or other liability.

### LANDSCAPE AND GROUND MAINTENANCE

This product can be incorporated into landscape and ground maintenance programs to provide extended preemergence control of most annual grasses and certain broadleaf weeds. Areas to be treated, such as fencelines and borders, mulch beds, parking areas and roadsides, around statuary or monuments, and similar areas, should be free of emerged weeds before application. To remove emerged weeds, either cultivate or tank mix this product with a postemergence herbicide labeled for such use.

Refer to the "APPLICATION RATES" table under the "ORNAMEN-TALS" section of this label for use rates. Avoid unintentional contact of spray solution of this product to stone, wood, or other porous surfaces as staining may occur. To avoid staining, rinse immediately.

### NON-BEARING FRUIT AND NUT CROPS AND VINEYARDS (Almond, Apple, Apricot, Cherry, Citrus, Fig, Grape, Nectarine, Olive, Peach, Pear, Pecan, Pistachio, Plum, Prune, Walnut English)

This product may be applied for preemergence control of most annual grasses and certain broadleaf weeds.

Apply the spray directly to the ground below the trees or vines. Refer to the "APPLICATION RATES" table under the "ORNAMENTALS" section of this label.

Allow soil or planting mixes to settle firmly following transplanting and that there are no cracks that would allow direct contact of this product and roots. Directed sprays where soil and media surfaces are uniformly covered will result in best weed control and plant tolerance.

For newly transplanted and one year old Grapevines, apply only when they are dormant. Do not apply if buds have started to swell.

This product may be used where the roots of a fruit, vine, nut, or ornamental plant encroach into a treatable area.

### **NON-CROPLAND INCLUDING TREE PLANTATIONS**

This product can be used for maintenance of grounds in noncropland areas; preemergence control of the weed species listed in and around established tree plantations (including Christmas trees); pulpwood and fiber farms; in and around established ornamentals planted in noncropland areas such as highway rights-of-way, and utility substations. This product may be used for hardwood and Conifer regeneration on conservation reserve program land or similar areas.

Refer to the "APPLICATION RATES" table under the "ORNAMEN-TALS" section of this label for use rates.

This product may be applied at planting or to established trees. When making an application at planting, it is important that slit closure be achieved to avoid direct contact of tree roots with this product or this product being washed into the root zone via the open slit or root stunting may occur.

For post-emergence use, tank-mix combination of this product with glyphosate, Finale, or other labeled herbicides are recommended. Refer to approved labeling for species recommendations.

Rates for the tank-mix compounds should be determined from the product labels of both this product and partner herbicides prior to use. Precaution must be exercised to prevent combination sprays from direct contact with desirable foliage or injury may result. This product plus diuron or simazine combinations will broaden weed control spectrum, however, use of combinations may restrict this product usage in sensitive areas. Refer to manufacturers' labels for specific use directions, precautions, and limitations before use and follow those that are most restrictive.

### **TOTAL VEGETATION CONTROL**

This product tank-mixed with Arsenal®, Plateau®, glyphosate, diuron, Finale, Oust®, or other products can provide bare ground, or total vegetation control. This product can be used to provide greater plant selectivity in areas where such action may be desired. Such sites might have roots of landscape vegetation, ornamentals, or desirable trees encroaching into the treated zone. Refer to tank mix partner labels regarding effects on desirable plants. Do not tank mix with Arsenal in California.

Applications may be made to existing weeds controlled by the partner herbicide. Recommended Rates should be determined from the product labels prior to use. Follow the most restrictive label instructions. **For Kochia:** Combinations of this product with Arsenal or diuron are recommended if control has been a problem for other herbicides. Refer to the "APPLICATION RATES" table under the "ORNAMEN-TALS" section of this label for use rates.

# STORAGE AND DISPOSAL

**PESTICIDE STORAGE:** Do not store below 40°F. Extended storage at temperatures below 40°F can result in the formation of crystals on the bottom of container. If crystallization does occur, store the container on its side at room temperature (70°F) and rock occasionally until crystals redissolve.

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

### CONTAINER DISPOSAL:

**Nonrefillable Container (rigid material; less than 5 gallons):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container one-fourth full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (rigid material; 5 gallons or greater): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth full with water. Replace and tighten closures. Tip container on its side and (Continued)

## STORAGE AND DISPOSAL (Cont.)

roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

### **Refillable Containers:**

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

### For Residential/Household Use:

**PESTICIDE DISPOSAL:** Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. **If empty**, place in trash or offer for recycling if available. **If partially filled**, call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

### WARRANTY-CONDITIONS OF SALE

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith.

To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

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