

PM 25

241-340

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PENDULUM™ WDG
herbicide

water dispersible granule

FOR USE IN ORNAMENTALS

ACTIVE INGREDIENT:

pendimethalin, N-(1-ethylpropyl)-3,4-dimethyl-2,
6-dinitrobenzenamine..... 60.0%

INERT INGREDIENTS:..... 40.0%

TOTAL..... 100.0%

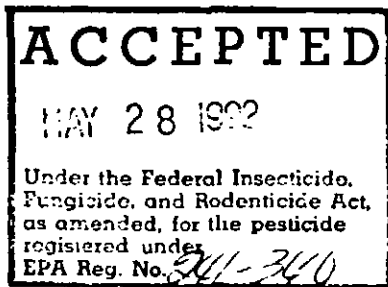
(10 lbs. contains 6 lbs. of pendimethalin)

EPA Reg. No. 241-340

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN

CAUTION/PRECAUCION!



PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

In case of emergency endangering life or property involving this product, call collect, day or night, Area Code 201-835-3100.

See Inside Leaflet For Additional Precautionary Statements and Directions For Use.

AMERICAN CYANAMID COMPANY
AGRICULTURAL DIVISION
VEGETATION AND PEST CONTROL
WAYNE, NJ 07470 ©1992

Net Contents: 10 Pounds

4/92

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**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS
CAUTION**

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling.

STATEMENT OF PRACTICAL TREATMENT

If in eyes: Flush eyes with plenty of water. Call a physician if irritation persists.

If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

ENVIRONMENTAL HAZARDS

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

DISCLAIMER

The label instructions for use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the use or application of the product contrary to label instructions, all of which are beyond the control of American Cyanamid Company. All such risks shall be assumed by the user.

American Cyanamid Company warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use therein described when used in accordance with the directions for use, subject to the risk referred to above.

Any damages arising from a breach of this warranty shall be limited to direct damages and shall not include consequential commercial damages such as loss of profits or values or any other special or indirect damages.

American Cyanamid Company makes no other express or implied warranty, including other express or implied warranty of FITNESS or of MERCHANTABILITY.

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DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. This labeling must be in the possession of the user at time of pesticide application. DO NOT apply this product through any type of irrigation system.

STORAGE AND DISPOSAL

STORAGE: DO NOT store above 120°F. Store in original containers and keep closed. Store in a cool, dry place.

DO NOT contaminate water, food, or feed by storage or disposal.

PESTICIDE

DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER

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

Observe all cautions and limitations on this label and the labels of products used in combination with PENDULUM WDG. The use of PENDULUM WDG not consistent with this label can result in injury to crops, animals, or persons. Keep bags closed to avoid spills and contamination.

GENERAL INFORMATION

PENDULUM WDG herbicide provides preemergence control of most annual grasses and certain broadleaf weeds as they germinate in and around listed established landscape, field, and container grown ornamentals.

PENDULUM WDG herbicide controls weeds as they germinate, but will not control established weeds. Therefore, areas to be treated should be free of established weeds. For the control of established weeds, PENDULUM WDG herbicide may be used in conjunction with herbicides registered for postemergence use (i.e. ROUNDUP*). Consult the labels of those herbicides for use rates, timings, and precautions or restrictions.

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.

*Trademark of Monsanto Company

Applied according to label directions and under normal growing conditions, PENDULUM WDG or PENDULUM WDG tank-mix combinations will not cause crop injury. Over-application can result in crop stand loss, crop injury, or soil residues. Uneven application can decrease weed control or cause crop injury.

Seedling diseases, cold weather, excessive moisture, deep planting, high soil pH, high soil salt concentration, or drought can weaken seedlings and plants, and increase the possibility of plant damage from PENDULUM WDG.

MIXING DIRECTIONS

Ground Driven Sprayer: Begin with a clean spray tank. Fill the spray tank 1/2 full with clean water and while agitating, add the required amount of PENDULUM WDG slowly to the spray tank. Continue agitation and finish filling the tank. Maintain agitation during application.

Backpack Sprayer: Begin with a clean spray tank. Fill the spray tank 1/2 full with clean water and add the required amount of PENDULUM WDG to the sprayer. Cap sprayer and agitate to ensure mixing. Uncap sprayer and finish filling tank to desired level. Cap sprayer and agitate once again. During application it is desirable to agitate the mixture on occasion to ensure mixing.

Tank Mixing: Fill spray tank 1/2 full with water, add the required amount of PENDULUM WDG to the spray tank and agitate until completely dispersed. Premix (1 part product + 2 parts water) tank mix product, add to spray tank, agitate, then fill spray tank to the desired level. If any settling is noted, agitate until the mixture is well dispersed. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed.

APPLICATION

Apply with properly calibrated equipment in sufficient water to provide uniform spray distribution. Low pressure sprayers delivering 20-50 psi are suggested. Use sprayer tips and screens no finer than 50 mesh (100 mesh is finer than 50 mesh). Maintain continuous agitation while spraying to ensure proper application rate of PENDULUM WDG. Check sprayer routinely to determine proper calibration. Avoid overlaps that will increase rates above those recommended. Avoid application when winds may cause drift. Avoid contact of spray solution with porous surfaces such as driveways, stone, or wood. Rinse immediately with water to avoid staining.

CULTURAL PRACTICES

The efficacy of PENDULUM WDG will be improved if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If weeds should develop prior to activation of herbicide, shallow cultivate to destroy existing weeds or remove by hand. If PENDULUM WDG is not activated by rainfall or irrigation within 14 days, erratic weed control may result.

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APPLICATION RATES

For preemergence control of the weed species listed, apply PENDULUM WDG herbicide at the following rates:

Ground Driven Sprayers

<u>Length of Control</u>	<u>Amount of PENDULUM WDG Product Required/Acre</u>
Short Term Control (2-4 months)	3.3 lbs.
Long Term Control (6-8 months)	6.6 lbs.

Backpack Sprayers

<u>Length of Control</u>	<u>Amount of PENDULUM WDG Product Required/1000 sq.ft.</u>
Short Term Control (2-4 months)	1.2 oz.
Long Term Control (6-8 months)	2.4 oz.

PENDULUM WDG herbicide will not control established weeds.

PRECAUTIONS

Apply PENDULUM WDG herbicide only to established plantings. DO NOT apply PENDULUM WDG herbicide to seedbeds, transplant beds, or liners until plants have become well rooted.

Care must be taken that soil or planting mixes have settled firmly following transplanting and that there are no cracks that would allow direct contact of PENDULUM WDG herbicide with roots. Directed sprays where soil and media surfaces are uniformly covered will result in best weed control and ornamental tolerance. Plant only those desirable plant species listed on this label into soil treated the previous season with PENDULUM WDG or injury may occur.

For container grown ornamentals, delay first application of this product to bareroot liners 2-4 weeks.

Plant only those desirable plant species listed on this label into soil treated the previous season with PENDULUM WDG or injury may occur.

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RECOMMENDED SPECIES

PENDULUM WDG is recommended for use around and over the top of all established landscape, field grown and container ornamentals listed below:

TREES

<u>Common Name</u>	<u>Scientific Name</u>
*Arborvitae, American	<u>Thuja occidentalis</u>
*Arbutus	<u>Arbutus</u> spp.
Ash, Red	<u>Fraxinus pennsylvanica</u>
*Basswood	<u>Tilia</u> spp.
Birch, European Weeping	<u>Betula pendula</u>
Birch, River	<u>Betula nigra</u>
*Buckeye, Red	<u>Aesculus pavia</u>
Cedar, Northern White	<u>Thuja occidentalis</u>
Cedar, Red	<u>Juniperus virginiana</u>
Chamaecyparis, Boulevard	<u>Chamaecyparis pisifera</u>
*Cherry, Kwanzan	<u>Prunus serrulata</u>
*Crabapple	<u>Malus</u> spp.
Crapemyrtle, Common	<u>Lagerstroemia indica</u>
Cryptomeria, Japanese	<u>Cryptomeria japonica</u>
*Cypress, Leyland	<u>Cupressocyparis leylandii</u>
Dogwood, Flowering	<u>Cornus florida</u>
*Dogwood, Korean	<u>Cornus kousa</u>
Dogwood, Silky	<u>Cornus amomum</u>
*Elm	<u>Ulmus japonica</u>
*Fir, Balsam	<u>Abies balsamae</u>
Fir, Douglas	<u>Pseudotsuga menziesii</u>
Fir, Fraser	<u>Abies fraseri</u>
Fir, White	<u>Abies concolor</u>
*Franklinia	<u>Franklinia</u> spp.
Hemlock, Eastern	<u>Tsuga canadensis</u>
Holly, American	<u>Ilex opaca</u>
Lilac, Common	<u>Syringa vulgaris</u>
*Lilac, Japanese	<u>Syringa reticulata</u>
Locust, Honey	<u>Gleditsia triacanthos</u>
*Magnolia, Saucer	<u>Magnolia soulangeana</u>
*Magnolia, Southern	<u>Magnolia grandiflora</u>
*Magnolia, Star	<u>Magnolia stellata</u>
*Maidenhair Tree	<u>Ginkgo biloba</u>
*Maple, Crimson King	<u>Acer platanoides</u>
*Maple, Japanese	<u>Acer palmatum</u>
Maple, Red	<u>Acer rubrum</u>
*Maple, Sugar	<u>Acer saccharum</u>
Oak, Live	<u>Quercus virginiana</u>
*Oak, Pin	<u>Quercus palustris</u>
Oak, Water	<u>Quercus nigra</u>
*Oak, Willow	<u>Quercus phellos</u>
*Palm, Date	<u>Phoenix</u> spp.
*Palm, Fan	<u>Washingtonia</u> spp.

Common Name

Scientific Name

*Palm, Pindo
 Peach
 *Pine, Austrian
 Pine, Italian Stone
 Pine, Loblolly
 *Pine, Scotch
 *Pine, Virginia
 Pine, White
 *Plum, Purple Leaf
 *Redwood, Dawn
 *Serviceberry
 Sourwood
 Spruce, Colorado Blue
 *Spruce, Norway
 *Spruce, White
 *Sweet Gum
 *Sycamore
 *Trachycarpus
 *Walnut, Black
 *Willow, Weeping
 *Yellowwood

Butia spp.
Prunus persica
Pinus nigra
Pinus pinea
Pinus taeda
Pinus sylvestris
Pinus virginiana
Pinus strobus
Prunus cerasifera
Metasequoia glyptostroboides
Amelanchier laevis
Oxydendron arboreum
Picea pungens
Picea abies
Picea glauca
Liquidambar styraciflua
Platanus occidentalis
Trachycarpus spp.
Juglans nigra
Salix babylonica
Cladrastis lutea

SHRUBS

Common Name

Scientific Name

Abelia, Glossy
 *Aucuba, Gold
 Azalea
 Bamboo, Heavenly
 *Barberry
 Barberry, Japanese
 Bottlebrush
 Boxwood, Common
 *Boxwood, Japanese
 *Camellia
 Capejasmine
 *Cordyline
 *Correa
 *Cotoneaster
 Cotoneaster, Rock
 *Cypress, Leyland
 *Deutzia, Slender
 *Eleagnus
 Euonymous
 *Euonymous, Golden
 Euonymous, Winged
 Firechorn
 Forsythia, Border
 *Gardenia
 Hawthorne, Indian
 *Hibiscus

Abelia grandiflora
Aucuba japonica
Rhododendron sp.
Nandina domestica
Berberis gladwynensis
Berberis thunbergii
Callistemon citrinus
Buxus sempervirens
Buxus microphylla
Camellia japonica
Gardenia jasminoides
Cordyline spp.
Correa spp.
Cotoneaster apiculata
Cotoneaster horizontalis
Leylandii cupressocyparis
Deutzia gracilis
Eleagnus ebbingei
Euonymus fortunei
Euonymous japonica
Euonymous alata
Pyracantha coccinea
Forsythia intermedia
Gardenia jasminoides
Raphiolepis indica
Hibiscus syriacus

<u>Common Name</u>	<u>Scientific Name</u>
Holly, Chinese	<u>Ilex cornuta</u>
Holly, Japanese	<u>Ilex crenata</u>
*Holly, Savannah	<u>Ilex attenuata</u>
Holly, Yaupon	<u>Ilex vomitoria</u>
*Juniper	<u>Juniperus sp.</u>
Laurel, Mountain	<u>Kalmia latifolia</u>
*Laurel, Otto Luyken	<u>Prunus laurocerasus</u>
Laurel, Schipka	<u>Prunus schipkanensis</u>
*Leucothoe	<u>Leucothoe fontanesiana</u>
*Leucothoe, Coast	<u>Leucothoe axillaris</u>
*Lilac, Cutleaf	<u>Syringa laciniata</u>
Lily-of-the-Nile	<u>Agapanthus africanus</u>
Mock Orange	<u>Pittosporum tobira</u>
Myrtle, Compact	<u>Myrtus communis</u>
Myrtle, Wax	<u>Myrica cerifera</u>
Nandina	<u>Nandina domestica</u>
Oleander	<u>Nerium oleander</u>
*Osmanthus	<u>Osmanthus fragrans</u>
Palm, European Fan	<u>Chamaerops humilis</u>
*Palm, Mediterranean Fan	<u>Chamaerops spp.</u>
Photinia, Fraser	<u>Photinia X Fraseri</u>
Pieris, Japanese	<u>Pieris japonica</u>
*Pine, Mugo	<u>Pinus mugo</u>
Plum, Natal	<u>Carissa grandiflora</u>
Privet, California	<u>Ligustrum ovalifolium</u>
*Privet, Glossy	<u>Ligustrum lucidum</u>
*Privet, Variegated	<u>Ligustrum sinensis</u>
Privet, Waxleaf	<u>Ligustrum japonicum</u>
*Quince, Flowering	<u>Chaenomeles japonica</u>
*Rhododendron	<u>Rhododendron sp.</u>
*Spice Plant	<u>Illicium parviflorum</u>
Spirea	<u>Spirea vanhouttei</u>
*Spirea, Japanese	<u>Spirea japonica</u>
*Verbena, Lemon	<u>Aloysia spp.</u>
*Wild Lilac	<u>Ceanothus spp.</u>
*Xylosma	<u>Xylosma congestum</u>
Yew	<u>Taxus media</u>
Yew, Japanese	<u>Taxus cuspidata</u>
*Yew, Pine	<u>Podocarpus macrophyllus</u>
*Yucca, Weeping	<u>Yucca pendula</u>

GROUND COVERS

<u>Common Name</u>	<u>Scientific Name</u>
Ajuga	<u>Ajuga reptans</u>
Capweed	<u>Arctotheca calendula</u>
Coyotebrush, Dwarf	<u>Baccharis chiloensis</u>
Daisy, Trailing African	<u>Osteospermum fruticosum</u>

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Common Name

Iceplant, Large Leaf
 Ivy, English
 Ivy, Geranium
 *Jasmine, Asiatic
 *Miscanthus
 *Mondgrass
 *Morninglory
 Myoporum
 Pachysandra
 Potentilla
 Potentilla
 Red Apple
 Rosemary
 Rose-Of-Sharon
 Sand Strawberry
 *St. Johnswort, Creeping
 Verbena, Peruvian
 Vinca
 *Wintercreeper

Scientific Name

Carpobrotus edule
Hedera helix
Pelargonium peltatum
Trach. lospernum asiaticum
Miscanthus spp.
Ophiopogon japonica
Convolvulus spp.
Myoporum parviflorum
Pachysandra terminalis
Potentilla jackmanii
Potentilla verna
Aptenia cordifolia
Rosemarnus officinalis
Hypericum calycinum
Fragaria chiloensis
Hypericum calycinum
Verbena peruviana
Vinca minor
Euonymous fortunei

PERENNIALS

Common Name

*Asparagus
 Aster, New York
 *Aster, Stokes
 *Babys Breath
 *Beard Tongue
 Butterfly Weed
 *Canna Lily
 *Carex
 Daylily
 *Fortnight Lily
 *Geum
 Hosta
 *Liriope, Green
 Liriope, Variegated
 *Nightshade
 Purple Loosestrife
 *Sweet Flag
 *Wisteria
 *Yarrow

Scientific Name

Asparagus spp.
Aster novi-belgii
Stokesia spp.
Gypsophila spp.
Penstemon spp.
Asclepias tuberosa
Canna generalis 'Lucifer'
Carex spp.
Hemerocallis spp.
Morea spp.
Geum spp.
Hosta spp.
Liriope spicata
Liriope muscari
Solanum spp.
Lythrum virgatum
Acorus spp.
Wisteria spp.
Achillea millefolium

ORNAMENTAL GRASSES

Common Name

Beach Grass
 Fescue, Blue
 Fountain Grass

Scientific Name

Ammophila breviligulata
Festuca ovina
Pennisetum setaceum

Common Name

Scientific Name

- Pampas Grass
- *Reed, Giant
- Ribbon Grass
- Tufted Hair Grass

- Cortaderia selloana
- Arundo spp.
- Phalaris arundinacea
- Deschampsia caespitosa

ANNUAL BEDDING PLANTS

Common Name

Scientific Name

- *Ageratum
- *Chinese Aster
- *Dusty Miller
- *Gazania
- *Gazania, Trailing
- *Marigold, African
- *Periwinkle
- *Plumosa Cockscomb

- Ageratum houstonianum
- Callistephus chinensis
- Senecio cineraria
- Gazania splendens
- Gazania uniflora leucoleana
- Tagetes erecta
- Catharanthus roseus
- Celosia cristata

WILDFLOWERS

Common Name

Scientific Name

- *Blackeyed Susan
- *California Poppy
- *Coreopsis, Lance Leaved
- *Oxeye Daisy

- Rudbeckia hirta
- Eschscholzia californica
- Coreopsis lanceolata
- Chrysanthemum leucanthemum

*Do not use in California.

WEED SPECIES CONTROLLED

PENDULUM WDG is recommended for preemergence control of the weed species listed. Applications can be made around and over the top of the ornamentals listed on this label.

GRASSES CONTROLLED

Common Name

Scientific Name

- Barnyardgrass
- Bluegrass, Annual
- Crabgrass
- Crowfootgrass
- Foxtail, Giant
- Foxtail, Green
- Foxtail, Yellow
- Goosegrass
- Itchgrass
- Johnsongrass (from seed)
- Junglerice
- Lovegrass
- Panicum, Browntop

- Echinochloa crus-galli
- Poa annua
- Digitaria spp.
- Dactyloctenium aegyptium
- Setaria faberi
- Setaria viridis
- Setaria lutescens
- Eleusine indica
- Rottboellia exaltata
- Sorghum halepense
- Echinochloa colonum
- Eragrostis spp.
- Panicum fasciculatum

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Common Name

Scientific Name

Panicum, Fall
Panicum, Texas
Sandbur, Field
Signalgrass
Sprangletop, Mexican
Sprangletop, Red
Witchgrass
Woolly Cupgrass

Panicum dichotomiflorum
Panicum texanum
Cenchrus incertus
Brachiaria platyphylla
Leptochloa uninervia
Leptochloa filiformis
Panicum capillare
Eriochloa villosa

BROADLEAF WEEDS CONTROLLED

Common Name

Scientific Name

*Burweed, Lawn
Carpetweed
Chickweed, Common
Chickweed, Mouseear
Clover, Hop
Cudweed
Fiddleneck
Filaree
Henbit
Knotweed (prostrate)
Kochia
Lambsquarters
Pigweed
Puncturevine
Purslane
Pusley, Florida
Rocket, London
Shepherdspurse
Smartweed, Pennsylvania
*Speedwell, Corn
Spurge, Annual
Spurge, Prostrate
Woodsorrel, Yellow
Velvetleaf (Buttonweed)

Soliva pterosperma
Mollugo verticillata
Stellaria media
Cerastium vulgatum
Trifolium procumbens
Gnaphalium spp.
Amsinckia intermedia
Erodium spp.
Lamium amplexicaule
Polygonum aviculare
Kochia scoparia
Chenopodium album
Amaranthus spp.
Tribulus terrestris
Portulaca oleracea
Richardia scabra
Sisymbrium irio
Capsella bursa-pastoris
Polygonum pennsylvanicum
Veronica arvensis
Euphorbia spp.
Euphorbia matriculata
Oxalis stricta
Abutilon theophrasti

*Do not use in California.