

241-341
PENDULUM® 3.3 EC
herbicide

FOR CONTROL OF MOST ANNUAL GRASSES AND CERTAIN BROADLEAF
WEEDS IN NONCROPLAND AREAS; ESTABLISHED ORNAMENTALS IN
NONCROPLAND AREAS; IN AND AROUND NURSERIES, SUCH AS
FIELD-GROWN, LINER, AND CONTAINER ORNAMENTALS; AND IN
COMMERCIAL LANDSCAPES AND CHRISTMAS TREE PLANTATIONS

ACTIVE INGREDIENT:

pendimethalin, N-(1-ethylpropyl)-3,4-dimethyl-2, 6-dinitrobenzenamine 37.4%

INERT INGREDIENTS* 62.6%

TOTAL 100.0%

(1 gallon contains 3.3 lbs. of pendimethalin)

*Contains Petroleum Distillates

) EPA Reg. No. 241-341

EPA Est. No.

**KEEP OUT OF REACH OF CHILDREN
CAUTION/PRECAUCION**

Si usted no entiende la etiqueta, busque a alguien 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.)

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

) See next page for Additional Precautionary Statements.

AMERICAN CYANAMID COMPANY
AGRICULTURAL PRODUCTS DIVISION
SPECIALTY PRODUCTS DEPARTMENT
WAYNE, NJ 07470 ©1994

Net Contents:

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FIRST AID

- If in eyes:** Hold eyelids open and flush with steady, gentle stream of water for 15 minutes. Call a physician if eye irritation persists.
- If swallowed:** DO NOT induce vomiting. Call a physician or Poison Control Center immediately.
- For skin contact:** Wash thoroughly with soap and water. Call a physician if skin irritation persists.

NOTE TO PHYSICIAN: 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

Causes moderate eye irritation. Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes or clothing. Use with adequate ventilation.

Personal Protective Equipment (PPE):

Some material 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 must wear:

- long-sleeved shirt and long pants
- chemical-resistant gloves, such as barrier laminate or viton (≥ 14 mils)
- shoes plus socks

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

User Safety Recommendations:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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.

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 herbicide application. DO NOT apply this product through any type of irrigation system. Do not use in manufacturing products for application to turf or ornamentals.

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.

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 Worker Protection Standard 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 or viton (≥ 14mils)
- shoes plus socks.

STORAGE AND DISPOSAL

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.

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

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 FOR 2.5 GALLONS: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

CONTAINER DISPOSAL FOR MINI BULK AND BULK: Return empty container to point of purchase for repackaging or recycling.

Observe all cautions and limitations in this label and the labels of products used in combination with PENDULUM 3.3 EC herbicide. The use of PENDULUM 3.3 EC herbicide not consistent with this label can result in injury to crops, animals, or persons. Keep containers closed to avoid spills and contamination.

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.

GENERAL INFORMATION

PENDULUM 3.3 EC herbicide is recommended for preemergence control of grasses and certain broadleaf weed species as they germinate on noncropland areas, in and around nurseries such as field-grown, liner, and container ornamentals, and in commercial landscapes and Christmas tree plantations. PENDULUM 3.3 EC herbicide treatments are most effective in controlling weeds when adequate rainfall is received within 30 days after application.

PENDULUM 3.3 EC herbicide will not control established weeds. Therefore, areas to be treated should be free of established weeds at the time of treatment, or PENDULUM 3.3 EC herbicide may be used in conjunction with herbicides registered for postemergence use in noncropland areas, in and around nurseries such as field-grown, liner, and container ornamentals, and in commercial landscapes and Christmas tree plantations. Consult the labels of those herbicides for suggested treatments, rates to be used and precautions or restrictions for use in noncropland areas.

MIXING INSTRUCTIONS

1. Fill tank one-half to three-quarters full with clean water.
2. Add PENDULUM 3.3 EC herbicide to the partially filled tank while agitating and then fill the remainder of the tank with water.
3. MAINTAIN CONTINUOUS AGITATION WHILE ADDING PENDULUM 3.3 EC HERBICIDE AND UNTIL SPRAYING IS COMPLETED. 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. Continue agitation while spraying.
4. If PENDULUM 3.3 EC herbicide is to be used in tank mixtures with other registered herbicides, then follow directions on the labels of those products which recommend tank mixing.

SPRAYING INSTRUCTIONS

Uniformly apply with properly calibrated ground equipment in sufficient water per acre to uniformly treat the area with a spray pressure of 25 to 50 psi. Maintain continuous agitation during spraying with good mechanical or bypass agitation.

PENDULUM 3.3 EC herbicide treatments in noncropland areas, in and around nurseries such as field-grown, liner, and container ornamentals, and in commercial landscapes and Christmas tree plantations are most effective in controlling weeds when adequate rainfall is received within 30 days after application.

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

NONCROPLAND WEED CONTROL

PENDULUM 3.3 EC herbicide is recommended for preemergence control of most annual grasses and certain broadleaf weeds as they germinate on noncropland areas such as railroad, utility, highway, and pipeline rights-of-way; highway guardrails, delineators, and sign posts; utility substations; petroleum tank farms; pumping installations; fence rows; storage areas; windbreaks and shelterbelts; and other similar areas.

For postemergence control of weeds, tank-mix combinations of PENDULUM 3.3 EC herbicide plus ARSENAL® herbicide are recommended. **DO NOT** tank mix with ARSENAL in California. Recommended rates for the tank-mix compounds should be determined from the product labels of both PENDULUM 3.3 EC herbicide and ARSENAL prior to use.

WEED CONTROL IN AND AROUND ORNAMENTAL PLANTINGS

PENDULUM 3.3 EC herbicide is recommended for use on the following established ornamentals and ground covers planted in and around nurseries, and in noncropland areas such as highway rights-of-way, utility substations, or similar areas. 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 3.3 EC herbicide and roots. Directed sprays where soil and media surfaces are uniformly covered will result in best weed control and ornamental tolerance. PENDULUM 3.3 EC herbicide sprays can be safely applied over-the-top of those plants listed below.

ESTABLISHED ORNAMENTALS

TREES

Common Name

Scientific Name

*Arborvitae, American

Thuja occidentalis

*Arbutus

Arbutus spp.

Ash, Red

Fraxinus pennsylvanica

*Basswood

Tilia spp.

Birch, European Weeping

Betula pendula

Birch, River

Betula nigra

Buckeye, Red

Aesculus pavia

Cedar, Northern White

Thuja occidentalis

Cedar, Red
Chamaecyparis, Boulevard
Cherry, Kwanzan
Crabapple
Crapemyrtle, Common
Cryptomeria, Japanese
Cypress, Leyland
Dogwood, Flowering
Dogwood, Korean
Dogwood, Silky
*Fir, Balsam
Fir, Douglas
Fir, Fraser
Fir, White
*Franklinia
Hemlock, Eastern
Locust, Honey
Magnolia, Saucer
Magnolia, Southern
Magnolia, Star
Maidenhair Tree
Maple, Crimson King
Maple, Japanese
Maple, Red
Maple, Sugar
Oak, Live
Oak, Pin
Oak, Water
Oak, Willow
Olive
*Palm, Date
*Palm, Fan
*Palm, Pindo
Peach
Pear, Bradford
*Pine, Austrian
Pine, Italian Stone
Pine, Loblolly
Pine, Monterey
*Pine, Scotch
*Pine, Virginia
Pine, White
Plum, Purple Leaf
Red Ironbark
Redcedar, Western
Redwood, Dawn
Sequoia, Giant
Serviceberry
Sourwood

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Juniperus virginiana
Chamaecyparis pisifera
Prunus serrulata
Malus spp.
Lagerstroemia indica
Cryptomeria japonica
Cupressocyparis leylandii
Cornus florida
Cornus kousa
Cornus amomum
Abies balsamae
Pseudotsuga menziesii
Abies fraseri
Abies concolor
Franklinia spp.
Tsuga canadensis
Gleditsia triacanthos
Magnolia soulangeana
Magnolia grandiflora
Magnolia stellata
Ginkgo biloba
Acer platanoides
Acer palmatum
Acer rubrum
Acer saccharum
Quercus virginiana
Quercus palustris
Quercus nigra
Quercus phellos
Olea europaea
Phoenix spp.
Washingtonia spp.
Butia spp.
Prunus persica
Pyrus calleryana 'Bradford'
Pinus nigra
Pinus pinea
Pinus taeda
Pinus radiata
Pinus sylvestris
Pinus virginiana
Pinus strobus
Prunus cerasifera
Eucalyptus sideroxylon 'Rosea'
Thuja plicata
Metasequoia glyptostroboides
Sequoiadendron giganteum
Amelanchier laevis
Oxydendron arboreum

Spruce, Colorado Blue
 Spruce, Norway
 *Spruce, White
 Sweet Gum
 Sycamore
 *Trachycarpus
 Tulip tree
 Walnut, Black
 Willow, Weeping
 Yellowwood

Picea pungens
Picea abies
Picea glauca
Liquidambar styraciflua
Platanus occidentalis
Trachycarpus spp.
Liriodendron tulipifera
Juglans nigra
Salix babylonica
Cladrastis lutea

SHRUBS

Common Name

Scientific Name

Abelia, Glossy
 Aucuba, Gold
 Azalea
 Bamboo, Heavenly
 Barberry
 Barberry, Japanese
 Bottlebrush, Lemon
 Boxwood, Common
 Boxwood, Japanese
 Bush Honeysuckle
 Camellia
 Capejasmine
 *Cordyline
 *Correa
 Cotoneaster
 Cotoneaster, Bearberry
 Cotoneaster, Rock
 Cypress, Leyland
 Deutzia, Slender
 Eleagnus
 Escallonia
 Euonymus
 *Euonymus, Golden
 Euonymus, Winged
 Firethorn
 Forsythia, Border
 Fuschia, California
 *Gardenia
 Hawthorne, Indian
 Hibiscus
 Holly, Chinese
 Holly, Japanese

Abelia grandiflora
Aucuba japonica
Rhododendron spp.
Nandina domestica
Berberis gladwynensis
Berberis thunbergii
Callistemon citrinus
Buxus sempervirens
Buxus microphylla
Diervilla lonicera
Camellia japonica
Gardenia jasminoides
Cordyline spp.
Correa spp.
Cotoneaster apiculata
Cotoneaster dammeri
Cotoneaster horizontalis
Cupressocyparis leylandii
Deutzia gracilis
Eleagnus ebbingei
Escallonia fradesii
Euonymus fortunei
Euonymus japonica
Euonymus aiata
Pyracantha coccinea
Forsythia intermedia
Zauschneria californica
Gardenia jasminoides
Raphioltis indica
Hibiscus syriacus
 ilex cornuta
 Ilex crenata

Holly, Savannah
Holly, Yaupon
Juniper
Laurel, Mountain
*Laurel, Otto Luyken
Laurel, Schipka
Laurustinus
Lavender, English
Leucothoe
Leucothoe, Coast
Lilac, Cutleaf
Lily-of-the-Nile
Mahonia
Mock Orange
Myrtle, Compact
Myrtle, Wax
Nandina
Oleander
*Osmanthus
Palm, European Fan
*Palm, Mediterranean Fan
Phlox, Prickly
Photinia, Fraser
Pieris, Japanese
*Pine, Mugo
Plum, Natal
Privet, California
*Privet Glossy
*Privet, Variegated
Privet, Waxleaf
Quince, Flowering
*Rhododendron
Spice Plant
Spiraea
Spiraea, Japanese
Sweet Bay
*Verbena, Lemon
*Wild Lilac
Xylosma
Yew
Yew, Japanese
Yew, Pine
Yucca
Yucca, Weeping

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Ilex attenuata
Ilex vomitoria
Juniperus spp.
Kalmia latifolia
Prunus laurocerasus
Prunus schipkanensis
Viburnum tinus
Lavandula angustifolia
Leucothoe fontanesiana
Leucothoe axillaris
Syringa laciniata
Agapanthus africanus
Mahonia aquifolium
Pittosporum tobira
Myrtus communis
Myrica cerifera
Nandina domestica
Nerium oleander
Osmanthus fragrans
Chamaerops humilis
Chamaerops spp.
Leptodactylon californicum
Photinia X Fraseri
Pieris japonica
Pinus mugo
Carissa grandiflora
Ligustrum ovalifolium
Ligustrum lucidum
Ligustrum sinensis
Ligustrum japonicum
Chaenomeles japonica
Rhododendron spp.
Illicium parviflorum
Spiraea vanhouttei
Spiraea japonica
Laurus nobilis
Aloysia spp.
Ceanothus spp.
Xylosma congestum
Taxus media
Taxus cuspidata
Podocarpus macrophyllus
Yucca filamentosa
Yucca pendula

PERENNIALS

Common Name

Scientific Name

Hosta
Liriope, Green
Liriope, "Monroe White"
Liriope, Variegated

Hosta spp
Liriope spicata
Liriope musari
Liriope muscari "variegata"

GROUND COVER ORNAMENTALS

Common Name

Scientific Name

Capeweed
Daisy, Trailing African
Gazania
Iceplant, Large Leaf
Ivy, English
Ivy, Geranium
Mondo grass
Myoporum
Pachysandra
Potentilla
Potentilla
Rose-of-Sharon

Arctotheca calendula
Osteospermum fruticosum
Gazania splendens
Carpobrotus edule
Hedera helix
Pelargonium peltatum
Ophiopogon japonica
Myoporum parviflorum
Pachysandra terminalis
Potentilla jackmanii
Potentilla verna
Hypericum calycinum

PRECAUTION!

Apply only to established plantings. Soil must be firmly settled around the roots. DO NOT apply to seedbeds or seedling transplant beds, unrooted liners, or cuttings.

WEED CONTROL IN CHRISTMAS TREE PLANTATIONS

PENDULUM 3.3 EC herbicide is recommended for preemergence control of the weed species listed on this label as they germinate in areas planted with the following Christmas trees:

- * Austrian Pine
- * Balsam Fir
- Colorado Blue Spruce
- Douglas Fir
- * Scotch Pine
- * Virginia Pine
- White Fir
- * White Spruce

Pinus nigra
Abies balsamiae
Picea pungens
Pseudotsuga menziesii
Pinus sylvestris
Pinus virginiana
Abies concolor
Picea glauca

*Do not use in California.

DO NOT apply PENDULUM 3.3 EC herbicide to Christmas tree seed or nursery beds. Apply PENDULUM 3.3 EC herbicide only to established Christmas tree plantations. PENDULUM 3.3 EC herbicide can be applied directly over the top of established Christmas trees.

PENDULUM 3.3 EC herbicide will not control established weeds. Therefore, areas to be treated should be free of established weeds at the time of treatment, or PENDULUM 3.3 EC herbicide may be used in conjunction with herbicides registered for postemergence use in Christmas trees. Consult the labels of those herbicides for suggested treatments, rates to be used and precautions or restrictions for use in Christmas trees.

WEED SPECIES CONTROLLED

For preemergence control of the weed species listed, apply PENDULUM 3.3 EC herbicide at the following rates:

<u>Length of Control</u>	<u>PENDULUM 3.3 EC Rate</u>
Short Term Control (2-4 months)	2.4 Quarts/Acre (1.8 fl. oz./1000 sq. ft.)
Long Term Control (6-8 months)	4.8 Quarts/Acre (3.5 fl. oz./1000 sq. ft.)

PENDULUM 3.3 EC herbicide will not control established weeds.

The efficacy of PENDULUM 3.3 EC herbicide will be improved if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation.

The following grass and broadleaf weeds are controlled by preemergence treatments of PENDULUM 3.3 EC herbicide at the rates recommended:

GRASSES CONTROLLED

<u>Common Name</u>	<u>Scientific Name</u>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bluegrass, Annual	<i>Poa annua</i>
Crabgrass	<i>Digitaria</i> spp.
Crowfootgrass	<i>Dactyloctenium aegyptium</i>
Foxtail, Giant	<i>Setaria faberi</i>
Foxtail, Green	<i>Setaria viridis</i>
Foxtail, Yellow	<i>Setaria lutescens</i>
Goosegrass	<i>Eleusine indica</i>
Itchgrass	<i>Rotboellia exaltata</i>
Johnsongrass (from seed)	<i>Sorghum halepense</i>
Junglerice	<i>Echinochloa colonum</i>
Lovegrass	<i>Eragrostis</i> spp.
Panicum, Browntop	<i>Panicum fasciculatum</i>
Panicum, Fall	<i>Panicum dichotomiflorum</i>
Panicum, Texas	<i>Panicum texanum</i>
Sandbur, Field	<i>Cenchrus incertus</i>
Signalgrass	<i>Brachiaria platyphylla</i>
Sprangletop, Mexican	<i>Leptochloa univervia</i>
Sprangletop, Red	<i>Leptochloa filiformis</i>
Witchgrass	<i>Panicum capillare</i>
Woolly Cupgrass	<i>Eriochloa villosa</i>

BROADLEAF WEEDS CONTROLLED

<u>Common Name</u>	<u>Scientific Name</u>
Burweed, Lawn	<u>Soliva ptersoperma</u>
Carpetweed	<u>Mollugo verticillata</u>
Chickweed, Common	<u>Stellaria media</u>
Chickweed, Mouseear	<u>Cerastium vulgatum</u>
Clover, Hop	<u>Trifolium procumbens</u>
Cudweed	<u>Gnaphalium spp.</u>
Fiddleneck	<u>Amsinckia intermedia</u>
Filaree	<u>Erodium spp.</u>
Henbit	<u>Lamium amplexicaule</u>
Knotweed (prostrate)	<u>Polygonum aviculare</u>
Kochia	<u>Kochia scoparia</u>
Lambsquarters	<u>Chenopodium album</u>
Pigweed	<u>Amaranthus spp.</u>
Puncturevine	<u>Tribulus terrestris</u>
Purslane	<u>Portulaca oleracea</u>
Pusley, Florida	<u>Richardia scabra</u>
Rocket, London	<u>Sisymbrium irio</u>
Sheperdspurse	<u>Capsella bursa-pastoris</u>
Smartweed, Pennsylvania	<u>Polygonum pensylvanicum</u>
Speedwell, Corn	<u>Veronica arvensis</u>
Spurge, Annual	<u>Euphorbia spp.</u>
Spurge, Prostrate	<u>Euphorbia humistrata</u>
Woodsorrel, Yellow	<u>Oxalis stricta</u>
Velvetleaf (Buttonweed)	<u>Abutilon theophrasti</u>

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