

# PENDULUM®

3.3 EC herbicide

**FOR USE IN TURFGRASSES, ORNAMENTALS, LANDSCAPE OR GROUNDS MAINTENANCE, AND NONCROPLAND AREAS**

**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.)

**FIRST AID**

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

**If swallowed:** Call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**NOTE TO PHYSICIAN:** Contains petroleum distillate – 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.

**In case of emergency endangering life or property involving  
this product, call day or night 1-800-832-HELP (4357).**

**See Inside Leaflet for First Aid, Precautionary Statements and Directions for Use.**

**Net Contents:**

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BASF Corporation  
26 Davis Drive  
Research Triangle Park, NC 27709

**BASF**  
The Chemical Company

## Pendulum® 3.3 EC herbicide

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS (AND DOMESTIC ANIMALS) **CAUTION**

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

#### Personal Protective Equipment (PPE):

##### NON-WPS USES:

Applicators and other handlers (except mixers/loaders) who handle this pesticide for any use NOT covered by the Worker Protection Standard (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 (≥ 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 ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, or viton ≥ 14 mils
- Shoes plus socks

##### WPS USES:

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

Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard (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 ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, or viton ≥ 14 mils.
- Shoes plus socks

Follow manufacturer's instructions for cleaning and 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.
- 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, 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 APPLY **Pendulum 3.3 EC** in greenhouses, shadehouses or other enclosed structures.

BASF Corporation 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.

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 **24** 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
- Chemical-resistant gloves, such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, or viton ≥ 14 mils.
- 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 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.

Do not enter or allow others to enter the treated area until sprays have dried.

## Pendulum® 3.3 EC herbicide

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL OR CROP INJURY.**

### 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:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or 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.

Observe all cautions and limitations on this label and the labels of products used in combination with **Pendulum 3.3 EC**. The use of **Pendulum 3.3 EC** 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 BASF Corporation (BASF). All such risks shall be assumed by the user.

BASF 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.

BASF makes no other express or implied warranty, including other express or implied warranty of FITNESS or of MERCHANTABILITY.

### GENERAL INFORMATION

**Pendulum 3.3 EC** provides preemergence control of most annual grasses and certain broadleaf weeds as they germinate in any turfgrass site (lawns, sod, turf areas). Examples of such sites include, but are not limited to: grounds or lawns around residential and commercial establishments, multi-family dwellings, military and other institutions, parks, airports, roadsides, schools, picnic grounds, athletic fields, houses of worship, cemeteries; golf

courses; prairiegrass areas; and sod farms.

**Pendulum 3.3 EC** 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; conifer and hardwood seedling nurseries; and for tree plantation site preparation and maintenance.

In addition, **Pendulum 3.3 EC** can be applied for general grounds maintenance around areas such as parking lots, driveways and roadsides, alleyways, bike and jogging paths, vacant lots, buildings, stone gardens and gravel yards, markers and fence lines, mulch beds and other similar areas. It may be used under asphalt or concrete treatments as part of a site preparation program.

**Pendulum 3.3 EC** is recommended for preemergence control of most annual grasses and certain broadleaf weeds as they germinate in any non-cropland area such as railroad, utility, highway, and pipeline rights-of-way; highway guardrails, delineators, and sign posts; bridge abutments and approaches; utility substations; petroleum tank farms; pumping installations; storage areas; fence rows; windbreaks and shelterbelts; paved or gravel surfaces; and other similar areas where weed control is desired.

**Pendulum 3.3 EC** 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 3.3 EC** may be used in conjunction with herbicides registered for postemergence use. 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.

The efficacy of **Pendulum 3.3 EC** will improve if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If **Pendulum 3.3 EC** is not activated by rainfall or irrigation within 30 days, erratic weed control may result.

Applied according to label directions and under normal growing conditions, **Pendulum 3.3 EC** or **Pendulum 3.3 EC** 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, high soil pH, high soil salt concentration, or drought can weaken seedlings and plants, and increase the possibility of plant damage from **Pendulum 3.3 EC**.

**Pendulum 3.3 EC** 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.

### MIXING INSTRUCTIONS FOR PENDULUM 3.3 EC

Respective sections of this leaflet define recommended **Pendulum 3.3 EC** or **Pendulum 3.3 EC** registered tank-mix treatments.

## Pendulum® 3.3 EC herbicide

### MIXING INSTRUCTIONS FOR PENDULUM 3.3 EC *(continued)*

**Ground Driven Sprayer:**

1. Fill tank one-half to three-quarters full with clean water.
2. Add **Pendulum 3.3 EC** 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** 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.
4. If **Pendulum 3.3 EC** 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:** Begin with a clean spray tank. Fill the spray tank 1/2 full with clean water and add the required amount of **Pendulum 3.3 EC** 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. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential before spraying is resumed.

**Liquid Fertilizers:** Prior to mixing, small quantities should always be tested using a simple jar test. Add the required amount of **Pendulum 3.3 EC** to half filled spray tank while agitating then add the fertilizer product. Complete filling spray tank to desired level.

**Dry Bulk Fertilizers:** **Pendulum 3.3 EC** may be impregnated on dry bulk fertilizers. When applied as directed, **Pendulum 3.3 EC**/Dry Bulk Fertilizer mixtures provide weed control equal to that provided by the same rates of **Pendulum 3.3 EC** applied in water.

### SPRAYING INSTRUCTIONS FOR PENDULUM 3.3 EC

Apply with properly calibrated ground equipment in sufficient water per acre to provide uniform spray distribution (at least 40 gallons of water per acre). Low pressure (e.g. 20-40 psi) sprayers are recommended. Maintain continuous agitation during spraying with good mechanical or bypass agitation. Check sprayer routinely to determine 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.

## TURFGRASSES

### APPLICATION RATES FOR WEED CONTROL<sup>1</sup>

Turfgrass Species	Weeds Controlled	Rates of Pendulum 3.3 EC	Comments
<b>COOL SEASON GRASSES</b>			
Bluegrass, Kentucky Fescue, fine Fescue, tall Ryegrass, perennial	crabgrass foxtail <i>Poa annua</i> barnyardgrass fall panicum oxalis prostrate spurge purslane knotweed evening primrose hop clover	3.6 to 4.8 pts./Acre or 1.3 to 1.8 oz./1,000 sq. ft.  Initial application prior to weed germination in spring.	Apply a repeat application of 2.5 to 3.6 pts./Acre (1 to 1.3 oz/1000 sq. ft.) after 5-8 weeks for extended control or where heavy weed infestations are expected.
	goosegrass	<b>Residential<sup>2</sup> Turf Uses Only:</b> 3.6 to 4.8 pts./Acre or 1.3 to 1.8 oz./1,000 sq. ft.  Initial application prior to weed germination in spring.	Apply a repeat application of 3.6 pts./Acre (1.3 oz./1000 sq. ft.) if the lower rate was used initially or for extended goosegrass control.

**Pendulum® 3.3 EC herbicide**

**TURFGRASSES**

**APPLICATION RATES FOR WEED CONTROL<sup>1</sup>**

<b>Turfgrass Species</b>	<b>Weeds Controlled</b>	<b>Rates of Pendulum 3.3 EC</b>	<b>Comments</b>
<b>COOL SEASON GRASSES (continued)</b>			
Bluegrass, Kentucky Fescue, fine Fescue, tall Ryegrass, perennial	goosegrass	<b>Commercial or Other Non-Residential Turf</b> Uses: 3.6 to 7.2 pts./Acre or 1.3 to 2.6 oz./1,000 sq. ft.  Initial application prior to weed germination in spring.	Apply a repeat application of 3.6 pts./Acre (1.3 oz/1000 sq. ft.) if the lower rate was used initially or for extended goosegrass control.
	cudweed <i>Poa annua</i> chickweed lawn burweed henbit corn speedwell	3.6 to 4.8 pts./Acre or 1.3 to 1.8 oz./1,000 sq. ft.	Apply in late summer or early fall prior to weed germination.

<b>Turfgrass Species</b>	<b>Weeds Controlled</b>	<b>Rates of Pendulum 3.3 EC</b>	<b>Comments</b>
<b>WARM SEASON GRASSES</b>			
Bahia grass Bermudagrass Buffalograss Centipedegrass Fescue, tall St. Augustinegrass Zoysiagrass	crabgrass foxtail <i>Poa annua</i> barnyardgrass fall panicum oxalis prostrate spurge purslane knotweed evening primrose hop clover	<b>Residential<sup>2</sup> Turf Uses Only:</b> 3.6 to 4.8 pts./Acre or 1.3 to 1.8 oz./1,000 sq. ft.  Initial application prior to weed germination in spring.	Apply a repeat application of 2.5 to 3.6 pts./Acre (1 to 1.3 oz/1000 sq. ft.) after 5-8 weeks if necessary.
	goosegrass	3.6 pts./Acre or 1.3 oz./1000 sq. ft.  Apply prior to weed germination in spring.  Make a second application 6-8 weeks later.	An additional application of 3.6 pts./Acre (1.3 oz/1000 sq. ft.) may be made for extended goosegrass control 8 weeks after the second application.
	cudweed <i>Poa annua</i> chickweed lawn burweed henbit corn speedwell	2.6 to 4.8 pts./Acre or 1.3 to 1.8 oz./1,000 sq. ft.	Apply in late summer or early fall prior to weed germination.

## Pendulum® 3.3 EC herbicide

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<sup>1</sup>**DO NOT** exceed a maximum of 4.8 pts./Acre per application for use on residential turfgrass.

<sup>2</sup>Residential is defined as turf in any residential situation as well as schools, parks and playgrounds. **DO NOT** exceed a maximum of 7.2 pts./Acre per application for use on commercial or other non-residential turfgrass.

The efficacy of **Pendulum 3.3 EC** will be improved if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If **Pendulum 3.3 EC** is not activated by rainfall or irrigation within 30 days, erratic weed control may result.

To prevent establishment of weeds along the edges of lawns it may be necessary to overlap the spray three to six inches onto sidewalks or driveways, etc. to ensure effective application rates in these especially vulnerable sites. Where temporary discoloration of pavement is to be avoided, rinse immediately to avoid staining.

### TURFGRASS TANK MIXES

**Pendulum 3.3 EC** can be mixed with postemergence herbicides to control emerged weeds in turfgrasses. For annual grass control, applications can be made with Acclaim® Extra or MSMA to control emerged weeds. Broadleaf weeds can be controlled using Trimec®, Three-Way™, 2,4-D, and other similar products.

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

Refer to manufacturers' labels for specific use directions, precautions, and limitations before tank mixing with **Pendulum 3.3 EC** and follow those that are most restrictive.

### TURFGRASS PRECAUTIONS

Use on well established turfgrass with a dense and uniform stand. 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 for turf recovery prior to making an application. Applications made to overseeded warm-season turfgrasses may cause thinning or injury of the overseeded species.

Do not use on greens or injury may occur.

Delay reseeding or winter overseeding of treated turfgrass for at least three (3) months following the last **Pendulum 3.3 EC** application. Delay sprigging turfgrass for five (5) months after application.

### INDUSTRIAL (UNIMPROVED) TURF

Industrial, or unimproved turf areas often have a different spectrum of weeds to be controlled than those found in fine turf as described elsewhere in this leaflet. **Pendulum 3.3 EC** will control annual grasses and broadleaf weeds mentioned in that section of this label as well as the following weeds that might germinate in established grasses in rights-of-way, roadsides, construction sites, parks, substations, lots, or similar areas:

Crowfootgrass, Itchgrass, Johnsongrass (from seed), Junglerice, Lovegrass, Browntop Panicum, Texas Panicum, Field Sandbur, Signalgrass, Mexican Sprangletop, Red Sprangletop, Witchgrass, Woolly Cupgrass, Carpetweed, Fiddleneck, Filaree, Kochia, Lambsquarters, Pigweed, Puncturevine, Florida Pusley, London Rocket, Shepherdspurse, Pennsylvania Smartweed, Annual Spurge, and Velvetleaf.

Apply before weeds germinate. A postemergence herbicide such as 2,4-D, MSMA, or similar products may be tank mixed to control established weeds. Apply according to label instructions for the respective products and follow the most restrictive wording.

## ORNAMENTALS

### RECOMMENDED SPECIES

**Pendulum 3.3 EC** sprays are safe 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.

**DO NOT APPLY Pendulum 3.3 EC** in greenhouses, shadehouses or other enclosed structures.

Refer to **APPLICATION RATE TABLE** for rates.

## Pendulum® 3.3 EC herbicide

### TREES

Common Name	Scientific Name
Alder, European black	<i>Alnus glutinosa</i>
Apple	<i>Malus</i> spp.
Arborvitae, American	<i>Thuja occidentalis</i>
Arbutus	<i>Arbutus</i> spp.
Ash, Red	<i>Fraxinus pennsylvanica</i>
Ash, White	<i>Fraxinus americana</i>
Aspen, Bigtooth	<i>Populus grandidentata</i>
Aspen, Quaking	<i>Populus tremuloides</i>
Basswood	<i>Tilia</i> spp.
Birch, European Weeping	<i>Betula pendula</i>
Birch, River	<i>Betula nigra</i>
Buckeye, Red	<i>Aesculus pavia</i>
Cedar, White	<i>Thuja occidentalis</i>
Chamaecyparis, Boulevard	<i>Chamaecyparis pisifera</i>
Cherry, Black	<i>Prunus serotina</i>
Cherry, Choke	<i>Prunus virginiana</i>
Cherry, Kwanzan	<i>Prunus serrulata</i>
Cherry, Nanking	<i>Prunus tomentosa</i>
Cottonwood	<i>Populus deltoides</i>
Crabapple	<i>Malus</i> spp.
Crepe myrtle	<i>Lagerstroemia indica</i>
Cryptomeria, Japanese Cedar	<i>Cryptomeria japonica</i>
Cypress, Bald	<i>Taxodium distichum</i>
Cypress, Leyland	<i>Cupressocyparis leylandii</i>
Dogwood, Flowering	<i>Cornus florida</i>
Dogwood, Korean	<i>Cornus kousa</i>
Dogwood, Silky	<i>Cornus amomum</i>
Dogwood, Shrub	<i>Cornus</i> spp.
Elm	<i>Ulmus japonica</i>
Fir, Balsam	<i>Abies balsamae</i>
Fir, Douglas	<i>Pseudotsuga menziesii</i>
Fir, Fraser	<i>Abies fraseri</i>
Fir, White	<i>Abies concolor</i>
Franklinia	<i>Franklinia</i> spp.
Ginkgo	<i>Ginkgo biloba</i>
Gum, Black	<i>Nyssa sylvatica</i>
Gum, Sour	<i>Nyssa sylvatica</i>
Haw, Black	<i>Viburnum prunifolium</i>
Hawthorn	<i>Crataegus</i> spp.
Hemlock, Canada	<i>Tsuga canadensis</i>
Hemlock, Eastern	<i>Tsuga canadensis</i>
Holly, American	<i>Ilex opaca</i>
Honeylocust	<i>Gleditsia triacanthos</i>
Lilac, Common	<i>Syringa vulgaris</i>
Lilac, Japanese Tree	<i>Syringa reticulata</i>
Linden	<i>Tilia</i> spp.
Magnolia, Saucer	<i>Magnolia soulangiana</i>
Magnolia, Southern	<i>Magnolia grandiflora</i>
Magnolia, Star	<i>Magnolia stellata</i>
Maidenhair Tree	<i>Ginkgo biloba</i>

### TREES

Common Name	Scientific Name
Maple, Norway	<i>Acer platanoides</i>
Maple, Japanese	<i>Acer palmatum</i>
Maple, Red	<i>Acer rubrum</i>
Maple, Sugar	<i>Acer saccharum</i>
Nannyberry, Rusty	<i>Viburnum rufidulum</i>
Oak, Chinquapin	<i>Quercus muehlenbergii</i>
Oak, Live	<i>Quercus virginiana</i>
Oak, Pin	<i>Quercus palustris</i>
Oak, Red	<i>Quercus rubra</i>
Oak, Swamp chestnut	<i>Quercus michauxii</i>
Oak, Water	<i>Quercus nigra</i>
Oak, White	<i>Quercus alba</i>
Oak, Willow	<i>Quercus phellos</i>
Olive	<i>Olea europaea</i>
Palm, Date	<i>Phoenix</i> spp.
Palm, Fan	<i>Washingtonia</i> spp.
Palm, Pindo	<i>Butia</i> spp.
Palm, Washington	<i>Washingtonia</i> spp.
Peach	<i>Prunus persica</i>
Pear, Bradford	<i>Pyrus calleryana</i> 'Bradford'
Pecan	<i>Carya illinoensis</i>
Pine, Austrian	<i>Pinus nigra</i>
Pine, Italian Stone	<i>Pinus pinea</i>
Pine, Loblolly	<i>Pinus taeda</i>
Pine, Monterey	<i>Pinus radiata</i>
Pine, Red	<i>Pinus resinosa</i>
Pine, Scotch	<i>Pinus sylvestris</i>
Pine, Slash	<i>Pinus elliotii</i>
Pine, Virginia	<i>Pinus virginiana</i>
Pine, White	<i>Pinus strobus</i>
Plum, Purple Leaf	<i>Prunus cerasifera</i>
Poplar, Black	<i>Populus nigra</i>
Redcedar, Eastern	<i>Juniperus virginiana</i>
Redcedar, Western	<i>Thuja plicata</i>
Red Ironbark	<i>Eucalyptus sideroxylon</i> 'Rosea'
Redwood, Dawn	<i>Metasequoia glyptostroboides</i>
Sequoia, Giant	<i>Sequoiadendron giganteum</i>
Serviceberry	<i>Amelanchier laevis</i>
Sourwood	<i>Oxydendrum arboreum</i>
Spruce, Colorado Blue	<i>Picea pungens</i>
Spruce, Dwarf Alberta	<i>Picea glauca</i> 'albertiana'
Spruce, Norway	<i>Picea abies</i>
Spruce, White	<i>Picea glauca</i>
Sweetgum	<i>Liquidambar styraciflua</i>
Sycamore	<i>Platanus occidentalis</i>
Trachycarpus	<i>Trachycarpus</i> spp.
Tulip tree	<i>Liriodendron tulipifera</i>
Walnut, Black	<i>Juglans nigra</i>
Willow, Weeping	<i>Salix babylonica</i>
Yellowwood	<i>Cladrastis lutea</i>

## Pendulum® 3.3 EC herbicide

### SHRUBS

Common Name	Scientific Name
Abelia, Glossy	<i>Abelia grandiflora</i>
Aucuba, Gold	<i>Aucuba japonica</i>
Azalea	<i>Rhododendron</i> spp.
Bamboo, Heavenly	<i>Nandina domestica</i>
Barberry	<i>Berberis gladwynensis</i>
Barberry, Japanese	<i>Berberis thunbergii</i>
Blue Indigo Bush	<i>Dalea gregii</i>
Bottlebrush, Lemon	<i>Callistemon citrinus</i>
Boxwood, Common	<i>Buxus sempervirens</i>
Boxwood, Japanese	<i>Buxus microphylla</i>
Camellia	<i>Camellia japonica</i>
Cape jasmine	<i>Gardenia jasminoides</i>
Cordyline	<i>Cordyline</i> spp.
Correa	<i>Correa</i> spp.
Cotoneaster	<i>Cotoneaster apiculatus</i>
Cotoneaster, Bearberry	<i>Cotoneaster dammeri</i>
Cotoneaster, Rock	<i>Cotoneaster horizontalis</i>
Cypress, Italian	<i>Cupressus sempervirens</i>
Cypress, Leyland	<i>Cupressocyparis leylandii</i>
Deutzia, Slender	<i>Deutzia gracilis</i>
Dogwood, Red Twig	<i>Cornus sericea</i>
Elaeagnus	<i>Elaeagnus ebbingei</i>
Escallonia	<i>Escallonia fradesii</i>
Euonymus	<i>Euonymus fortunei</i>
Euonymus, Golden	<i>Euonymus japonica</i>
Euonymus, Winged	<i>Euonymus alata</i>
Firethorn	<i>Pyracantha coccinea</i>
Forsythia, Border	<i>Forsythia intermedia</i>
Fragrant Olive	<i>Osmanthus fragrans</i>
Fuschia, California	<i>Zauschneria californica</i>
Gardenia	<i>Gardenia jasminoides</i>
Hawthorne, Indian	<i>Raphiolepis indica</i>
Hibiscus	<i>Hibiscus syriacus</i>
Holly, Chinese	<i>Ilex cornuta</i>
Holly, Japanese	<i>Ilex crenata</i>
Holly, Fosters	<i>Ilex attenuata</i> 'Fosteri'
Holly, Savannah	<i>Ilex attenuata</i>
Holly, Yaupon	<i>Ilex vomitoria</i>
Honeysuckle, Bush	<i>Diervilla lonicera</i>
Juniper	<i>Juniperus</i> spp.
Juniper, Chinese	<i>Juniperus chinensis</i> v. <i>pfitzer</i>
Juniper, Shore	<i>Juniperus conferta</i>
Juniper, Trailing	<i>Juniperus horizontalis</i>
Laurel, Cherry	<i>Prunus laurocerasus</i>
Laurel, Mountain	<i>Kalmia latifolia</i>
Laurel, Otto Luyken	<i>Prunus laurocerasus</i>
Laurel, Schipka	<i>Prunus schipkanensis</i>
Laurustinus	<i>Viburnum tinus</i>
Lavender, English	<i>Lavandula angustifolia</i>
Leucothoe	<i>Leucothoe fontanesiana</i>

### SHRUBS

Common Name	Scientific Name
Leucothoe, Coast	<i>Leucothoe axillaris</i>
Lilac, Cut-leaf	<i>Syringa laciniata</i>
Lily-of-the-Nile	<i>Agapanthus africanus</i>
Mahonia	<i>Mahonia aquifolium</i>
Mock Orange	<i>Pittosporum tobira</i>
Myrtle, Compact	<i>Myrtus communis</i>
Myrtle, Wax	<i>Myrica cerifera</i>
Nandina	<i>Nandina domestica</i>
Oleander	<i>Nerium oleander</i>
Oregon Grape	<i>Mahonia aquifolium</i>
Osmanthus	<i>Osmanthus fragrans</i>
Palm, European Fan	<i>Chamaerops humilis</i>
Palm, Mediterranean Fan	<i>Chamaerops</i> spp.
Phlox, Prickly	<i>Leptodactylon californicum</i>
Photinia, Fraser	<i>Photinia X Fraseri</i>
Pieris, Japanese	<i>Pieris japonica</i>
Pine, Mugo	<i>Pinus mugo</i>
Plum, Natal	<i>Carissa grandiflora</i>
Privet, California	<i>Ligustrum ovalifolium</i>
Privet, Glossy	<i>Ligustrum lucidum</i>
Privet, Variegated	<i>Ligustrum sinensis</i>
Privet, Waxleaf	<i>Ligustrum japonicum</i>
Pyracantha	<i>Pyracantha coccinea</i>
Quince, Flowering	<i>Chaenomeles japonica</i>
Ranger, Texas	<i>Leucophyllum frutescens</i>
Redroot	<i>Ceanothus</i> spp.
Rhododendron	<i>Rhododendron</i> spp.
Robira	<i>Pittosporum tobiri</i>
Spice Plant	<i>Illicium parviflorum</i>
Spiraea	<i>Spiraea vanhouttei</i>
Spiraea, Anthony Waterer	<i>Spiraea X bumalda</i>
Spiraea, Japanese	<i>Spiraea japonica</i>
Sweet Bay	<i>Laurus nobilis</i>
Trumpet Bush	<i>Tecoma stans</i>
Verbena, Lemon	<i>Aloysia triphylla</i>
Viburnum	<i>Viburnum suspensum</i>
Vitex	<i>Vitex</i> spp.
Weigela	<i>Weigela florida</i>
Wild Lilac	<i>Ceanothus</i> spp.
Xylosma	<i>Xylosma congestum</i>
Yellowbells	<i>Tecoma stans</i>
Yew*	<i>Taxus media</i>
Yew, Japanese*	<i>Taxus cuspidata</i>
Yew, Southern	<i>Podocarpus macrophyllus</i>
Yucca, Adam's	<i>Yucca filamentosa</i>
Yucca, Weeping	<i>Yucca pendula</i>

\* Applications should not be made during spring growth or injury to terminals may occur.

## Pendulum® 3.3 EC herbicide

### GROUND COVERS

Common Name	Scientific Name
Ajuga	<i>Ajuga reptans</i>
Capeweed	<i>Arctotheca calendula</i>
Cinquefoil, Spring	<i>Potentilla verna</i>
Daisy, Trailing African	<i>Osteospermum fruticosum</i>
Gazania	<i>Gazania splendens</i>
Iceplant, Large Leaf	<i>Carpobrotus edulis</i>
Ivy, English	<i>Hedera helix</i>
Ivy, Geranium	<i>Pelargonium peltatum</i>
Jasmine, Asiatic	<i>Trachelospermum asiaticum</i>
Jasmine, Primrose	<i>Jasminum mesnyi</i>
Mondgrass	<i>Ophiopogon japonica</i>
Myoporum	<i>Myoporum parvifolium</i>
Pachysandra	<i>Pachysandra terminalis</i>
Potentilla	<i>Potentilla fruticosa</i>
Rose-Of-Sharon	<i>Hypericum calycinum</i>
Wintercreeper	<i>Euonymus fortunei</i>

### PERENNIALS

Common Name	Scientific Name
Bleeding Heart	<i>Dicentra spectabilis</i>
Calla lily	<i>Zantedeschia aethiopica</i>
Canna, common garden	<i>Canna generalis</i> 'Lucifer'
Chincherinchee	<i>Ornithogalum thyrsoides</i>
Crinum Lily	<i>Crinum</i> spp.
Fern, Asparagus	<i>Asparagus officinalis</i>
Fern, Leatherleaf	<i>Rumohra adiantiformis</i>
Freesia	<i>Freesia x hybrida</i>
Heather, Dwarf	<i>Calluna vulgaris</i>
Hosta	<i>Hosta</i> spp.
Lily	<i>Lilium</i> spp.
Liriope, Creeping	<i>Liriope spicata</i>
Liriope, Variegated	<i>Liriope muscari</i>
Montbretia	<i>Crocsmia crocosmiiflora</i>
Orchid, Peacock	<i>Acidanthera bicolor</i>
Peony, Chinese	<i>Paeonia lactiflora</i>
Wisteria	<i>Wisteria</i> spp.
Zephyr Lily	<i>Zephyranthes</i> spp.

### ORNAMENTAL GRASSES

Common Name	Scientific Name
Beach Grass	<i>Ammophila breviligulata</i>
Fescue, Blue	<i>Festuca ovina</i>
Fescue, Sheep	<i>Festuca ovina</i>
Fountain Grass	<i>Pennisetum setaceum</i>
Pampas Grass	<i>Cortaderia selloana</i>
Reed Canary Grass	<i>Phalaris arundinacea</i>
Reed, Giant	<i>Arundo</i> spp.

### ORNAMENTAL GRASSES

Common Name	Scientific Name
Ribbon Grass	<i>Phalaris arundinacea</i>
Tufted Hair Grass	<i>Deschampsia caespitosa</i>

**Pendulum 3.3 EC** may 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 recommended rate. Treated plants should be evaluated 1-2 months following treatment for possible injury. THE USER ASSUMES RESPONSIBILITY FOR ANY CROP DAMAGE OR OTHER LIABILITY. **DO NOT** treat plants grown for food or feed. **DO NOT** use treated plants for food or feed.

#### ORNAMENTAL RESTRICTIONS

- Apply **Pendulum 3.3 EC** to established plantings.
- **DO NOT** make applications to grafted (or budded) liners at any time.
- **DO NOT** make over-the-top applications to liners or transplants using **Pendulum**.
- **DO NOT** apply **Pendulum 3.3 EC** to liners or transplants during bud break or at time of first flush of new growth.
- **Direct** sprays to soil when making applications to established liners or transplants.
- **DO NOT** allow spray to cover or penetrate foliage and/or buds or injury is likely to occur.
- **DELAY** applying **Pendulum 3.3 EC** to seedbeds, transplant beds or liners until plants have become well rooted. Care must be taken that soil or planting mixes has settled firmly following transplanting and that there are no cracks that would allow direct contact of **Pendulum 3.3 EC** with roots. When established rootstock an application of **Pendulum 3.3 EC** can be made prior to budding/grafting the plants.
- Plant only those desirable plant species listed on this label into soil treated the previous season with **Pendulum 3.3 EC** or injury may occur.
- For container grown ornamentals, delay first application of this product to bareroot liners 2-4 weeks after transplanting.
- **DO NOT APPLY Pendulum 3.3 EC** in greenhouses, shadehouses or other enclosed structures.

It is recommended that treated plants be evaluated for 1-2 months prior to making application to a large number of plants. THE USER ASSUMES RESPONSIBILITY FOR ANY CROP DAMAGE OR OTHER LIABILITY.

#### ORNAMENTAL TANK MIXES

Emerged weeds in ornamentals can be controlled using tank mixes containing Roundup PRO®, Finale™, Ornamec®, Gallery™, Princep®, and other similar products. **DO NOT** apply sprays containing Roundup PRO or Finale over the top of ornamental plants. Before tank mixing a simple jar test is recommended to insure compatibility of herbicides.

Refer to manufacturers' labels for specific use directions, precautions, and limitations before tank mixing with **Pendulum 3.3 EC** and follow those that are most restrictive.

## Pendulum® 3.3 EC herbicide

### LANDSCAPE AND GROUND MAINTENANCE

**Pendulum 3.3 EC** can be incorporated into landscape and grounds maintenance programs to provide extended preemergence control of most annual grasses and certain broadleaf weeds. Areas to be treated, such as mulch beds, parking areas and roadsides, fencelines and borders, around statuary or monuments, and similar areas, should be free of emerged weeds before application. To remove emerged weeds either cultivate or tank mix **Pendulum 3.3 EC** with a postemergence product labeled for such use.

Refer to APPLICATION RATE TABLE for rates. Avoid unintentional contact of spray solution stone, wood, or other porous surfaces as staining may occur. Rinse immediately to avoid staining.

### NON-BEARING FRUIT AND NUT CROPS AND VINEYARDS

**Pendulum 3.3 EC** may be applied for preemergence control of most annual grasses and certain broadleaf weeds on the following non-bearing crops:

Almond	Citrus	Olive	Pistachio
Apple	Fig	Peach	Plum
Apricot	Grape	Pear	Prune
Cherry	Nectarine	Pecan	Walnut, English

Refer to APPLICATION RATE TABLE for rates.

Apply the spray directly to the ground below the trees or vines. 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** 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. **Pendulum 3.3 EC** may be used where the roots of a fruit, vine, nut, or ornamental plant encroach into a treatable area.

### NON-CROPLAND AREAS INCLUDING TREE PLANTATIONS

**Pendulum 3.3 EC** is recommended for grounds maintenance 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. **Pendulum 3.3 EC** may be used for hardwood and conifer regeneration on conservation reserve program land or similar areas.

Refer to **APPLICATION RATE TABLE** for rates.

**Pendulum 3.3 EC** may be applied at planting or to established trees. When making an application at planting, it is important that slit closure be achieved to prevent **Pendulum 3.3 EC** from directly contacting the tree roots or being washed into the root zone via the open slit or root stunting may occur.

For postemergence control of weeds, tank-mix combinations of **Pendulum 3.3 EC** plus Roundup PRO, Finale, or other labeled herbicides are recommended. Refer to approved labeling for species recommendations. Recommended rates for the tank-mix compounds should be determined from the product labels of both **Pendulum 3.3 EC** and partner herbicides prior to use. Precaution must be exercised to prevent combination sprays from direct contact with desirable foliage or injury may result. **Pendulum 3.3 EC** plus **diuron** or **simazine** combinations will broaden weed control spectrum, however, use of combinations may restrict **Pendulum 3.3 EC** 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 VEGETATIVE CONTROL

**Pendulum 3.3 EC** may be tank mixed with **ARSENAL®**, **PLATEAU®**, Roundup PRO, Karmex®, Finale, Oust®, diuron, or other products to provide bare ground, or total vegetation control. **Pendulum 3.3 EC** 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 **Pendulum 3.3 EC** with **ARSENAL** or diuron are recommended if control has been a problem for other herbicides.

### APPLICATION RATE TABLE

For preemergence control of the weed species listed using broadcast spray equipment, apply **Pendulum 3.3 EC** at the following rates:

Length of Control	Quarts required to treat 1 acre	Ounces required to treat 1000 sq. ft.
Short Term (2-4 months)	2.4 quarts	1.8 oz.
Long Term (6-8 months)	4.8 quarts	3.6 oz.

## Pendulum® 3.3 EC herbicide

**Hand-held Spray Equipment:** Use the table above to determine the amount of **Pendulum 3.3 EC** to be applied per 1000 square feet. The amount of water used for the application is not critical but 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. Follow mixing instructions discussed elsewhere on this label.

The efficacy of **Pendulum 3.3 EC** will improve if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If **Pendulum 3.3 EC** is not activated by rainfall or irrigation within 30 days, erratic weed control may result.

**Pendulum 3.3 EC** 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. **Pendulum 3.3 EC** may be used in conjunction with herbicides registered for postemergence use (i.e. Roundup PRO or Finale) for the control of established weeds. Do not apply sprays containing Roundup PRO or Finale over the top of desirable plants. A **Pendulum 3.3 EC** treatment may be followed by any registered herbicide to control weeds not listed on the **Pendulum 3.3 EC** label.

### WEED SPECIES CONTROLLED

**Pendulum 3.3 EC** is recommended for preemergence control of the weed species listed. Applications can be made around and over the top of the ornamentals and to the sites listed on this label.

### GRASSES CONTROLLED

Common Name	Scientific Name
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 glauca</i>
Goosegrass	<i>Eleusine indica</i>
Itchgrass	<i>Rottboellia exaltata</i>
Johnsongrass (from seed)	<i>Sorghum halepense</i>
Junglerice	<i>Echinochloa colona</i>
Lovegrass (from seed)	<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 uninervia</i>
Sprangletop, Red	<i>Leptochloa filiformis</i>
Witchgrass	<i>Panicum capillare</i>
Woolly Cupgrass	<i>Eriochloa villosa</i>

### BROADLEAF WEEDS CONTROLLED

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

## Pendulum® 3.3 EC herbicide

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BASF Corporation  
Agricultural Products  
26 Davis Drive  
Research Triangle Park, NC 27709

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The Chemical Company