#### PRE - M1 3.3 EC Turf Herbicide

PM 347 367

An Emulsifiable Concentrate for Use as a Preemergent Weet Control in Noncropland Areas, Luwns, Turf, and Established Landscape Ornamentals

#### **ACTIVE INGREDIENT:**

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

(1 gallon contains 3.3 lbs. of pendimethalin)
\*Contains Petroleum Distillates

EPA Reg. No. 241-360

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

#### 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.

<u>If swallowed</u>: 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.

See next page for Additional Precautionary Statements.

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American Cyanamid Company
Agricultural Research Division
Specialty Products Department
Wayne, NJ 07470 ©1994

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## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS

#### **CAUTION!**

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

#### **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 the 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 use on turf being grown for sale or other commercial use such as sod, or commercial seed production, or for research purposes.

#### 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.

<u>Pesticide Disposal</u>: 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, by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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Observe all cautions and limitations in this label and the labels of products used in combination with PRE-M 3.3 EC turf herbicide. The use of PRE-M 3.3 EC turf 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**

PRE-M 3.3 EC turf herbicide is recommended for preemergence control of grasses and certain broadleaf weed species as they germinate on noncropland areas. PRE-M 3.3 EC turf herbicide treatments are most effective in controlling weeds when adequate rainfall is received within 30 days after application.

PRE-M 3.3 EC turf herbicide will not control established weeds. Therefore, areas to be treated should be free of established weeds at the time of treatment, or PRE-M 3.3 EC turf herbicide may be used in conjunction with herbicides registered for postemergence use in noncropland areas. 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 PRE-M 3.3 EC turf herbicide to the partially filled tank while agitating and then fill the remainder of the tank with water.
- 3. MAINTAIN CONTINUOUS AGITATION WHILE ADDING PRE-M 3.3 EC turf herbicide AND UNTIL SPF AYING 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 PRE-M 3.3 EC turf 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.

#### NONCROPLAND WEED CONTROL

PRE-M 3.3 EC turf 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, shelterbelts, and other similar areas.

For postemergence control of weeds, tank-mix combinations of PRE-M 3.3 EC turf 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 PRE-M 3.3 EC turf herbicide and ARSENAL prior to use.

#### ESTABLISHED LANDSCAPE ORNAMENTALS

Common Name	Scientific Name		
Azalea "Coral Bells" Bamboo, Heavenly Birch, River Bottle Brush Boxwood, Common	Rhododendron Nandina domestic Betula nigra Callistemon citrinus Buxus sempervirens		
Doxwood, Common	Duxus semper virens		

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Bush Honeysuckle Common Oleander Dogwood

European Fan Palm Fir, Balsam Firethorn

Holly, Dwarf Burfordi Holly, Japanese Compacta

Holly "Savannah"

Hosta

Juniper, Andorra Juniper "Pfitzer"

Juniper "Sea Green" Juniper "Blue Chip"

Juniper, Savins "Broadmoor"

Liriope, Green

Liriope, "Monroe White"

Liriope, Variegated

Maple, Red

Mondo Grass

Mountain Laurel
Natal Plum
Pittosporum
Privet, Japanese
Spirea, Bridal Wreath

Diervilla ionicera
Nerium oleander
Cornus cardinal
Chamaerops humills
Abies balsamea
Pyracantha coccinea
Ilex cornutanana
Ilex crenata compacta

Ilex attenuata Hosta lancifolia

Juniperus horizontalis plumosa

Juniperus chinensis

Juniperus chinensis media Juniperus horizontalis Juniperus sabina Liriope spicata Liriope muscari

Liriope muscari "Variegata"

Acer rubrum

Ophiopogon japonicum

Kalmia latifolia Carissa grandiflora Pittosporum tobira Ligustrum japonicum Spirea vanhouttei

#### **ESTABLISHED GROUND COVERS**

Arctotheca calendula

#### Common Name

## Scientific Name

Capeweed

Daisy, Trailing African

Gazania

Rose-of-Sharon Iceplant, Large Leaf

Ivy, English

Ivy, Geranium Myoporum Pachysandra Potentilla Potentilla Osteosperium fructicosum
Gazania spiendens
Hypericum calycinum
Carpobrotus edule
Helix hedera

Pelargonium peitatum
Myoporum parviflorum
Pachysandra terminalis
Potentilla jackmanii
Potentilla verna



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#### WEED SPECIES CONTROLLED

For preemergence control of the weed species listed, apply PRE-M 3.3 turf herbicide at the following rates:

## Length of Control

## PRE-M 3.3 EC Turf Herbicide

Short-Term Control (2-4 months) 2.4 Quarts/Acre Long-Term Control (6-8 Months) 4.8 Quarts/Acre

## PRE-M 3.3 EC turf herbicide will not control established weeds.

The efficacy of PRE-M 3.3 EC turf 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 PRE-M 3.3 EC turf herbicide at the rates recommended:

### **GRASSES CONTROLLED**

## Common Name Scientific Name

Barnyardgrass Echinochioa crus-galii

Bluegrass, Annual *Poa annua*Crabgrass *Digitaria* spp.

Crowfootgrass Dactyloctenium aegyptium

Foxtail, Giant

Foxtail, Green

Foxtail, Yellow

Goosegrass

Itchgrass

Johnsongrass (from seed)

Junglerice

Setaria faberi

Setaria viridis

Setaria lutescens

Eleusine indica

Rottboeilla exaltata

Sorghum halepense

Echinochioa colonum

Lovegrass Eragroatis spp.

Panicum, Browntop
Panicum, Fall
Panicum dichotomiflorum

Panicum, Texas

Sandbur, Field

Signalgrass

Sprangletop, Mexican

Panic n texanum

Cenchrus incertus

Brachiaria platphylia

Leptochloa uninervia

Sprangletop, Mexican
Sprangletop, Red
Leptochioa uninervia
Leptochioa fillformis
Witchgrass
Panicum capillare
Woolly Cupgrass
Eriochloa villosa

### BROADLEAF WEEDS CONTROLLED

Scientific Name

#### Common Name

Carpetweed

Chickweed, Common

Chickweed, Mouseear

Clover, Hop

Cudweed

Fiddleneck

Mollugo verticillata

Stellaria media

Cerastium vulgatum

Trifolium procumbens

Gnaphalium spp.

Amsinckla intermedia

Filaree Erodium spp.

Lamium amplexicaule Henbit Polygonum aviculare Knotweed (prostrate) Kochia scoparia Kochia Chenopedium album Lambsquarters **Pigweed** Amaranthus spp. Puncturevine Tribulus terrestris Purslane Portulace pleracea Richardia scabra Pusley, Florida Rocket, London Sisymbrium irio

Sheperdspurse Capsella bursa-pastoris
Smartweed, Pennsylvania Polygonum pensylvanicum

Spurge, Annual Euphorbia spp.

Spurge, Prostrate Euphorbia maticulata

Woodsorrel, Yellow Oxalis stricta

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Velvetleaf (Buttonweed) Abutilion theophrasti

#### WEED CONTROL IN LAWNS AND TURF

PRE-M 3.3 EC turf herbic'de can be used for weed control in lawns and turf.

<u>Turfgrass Types</u>: PRE-M 3.3 EC turf herbicide should only be applied to well established lawns and turf. PRE-M 3.3 EC turf herbicide can be used on the following turfgrasses: Bahiagrass, Bermudagrass, Centipedegrass, Fine Fescue, Kentucky Bluegrass, Perennial Ryegrass, St. Augustinegrass, Tall Fescue, Zoysiagrass.

#### GENERAL INFORMATION

Use only on well-established turfgrass with a dense and uniform stand.

PRE-M 3.3 EC turf herbicide treatments will not control established weeds. Applications must be made prior to germination of weeds.

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Three applications per year may be made. Allow at least 2 months between applications except where indicated under RATE AND APPLICATION CHART.

#### MIXING AND APPLICATION INSTRUCTIONS

Add PRE-M 3.3 EC turf herbicide slowly to partially filled tank (1/2 to 3/4 full) of water while agitating and then fill the remainder of the tank with water. MAINTAIN CONTINUOUS AGITATION WHILE ADDING PRE-M 3.3 EC turf 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 as needed.

Apply with properly calibrated equipment in sufficient water per acre to provide uniform spray distribution. Low pressure (25-50 psi) sprayers are recommended. Avoid application when winds may cause drift.

#### **COMPATIBILITY**

PRE-M 3.3 EC turf herbicide is compatible with most commonly used herbicides. When PRE-M 3.3 EC turf herbicide is used in tank mixture with another herbicide, refer to each label for rates, methods of application, proper timing, weeds controlled, limitations, and precautions. Always use in accordance with the more restrictive label limitations and precautions. When tank mixing be sure to add PRE-M 3.3 EC turf herbicide to the partially filled tank first, mix thoroughly, and then add combination products to the mixture. DO NOT apply tank mix combinations unless previous experience indicates the mixture is effective and will not result in application problems or plant injury. DO NOT attempt to mix PRE-M 3.3 EC turf herbicide directly with liquid fertilizer. Premix one part of PRE-M 3.3 EC turf herbicide with two parts water and add this diluted mixture slowly into the tank while agitating.

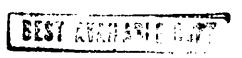
#### **PRECAUTIONS**

Not for use on bentgrass or *Poa annua* (putting greens and tees) or on dichondra, where these are desired species.

This product may cause yellowing and thinning of cool season grasses in winter overseeded turf.

Delay seeding by 4 months and sprigging by 5 months after application. Prior to seeding or sprigging, the soil surface should be disturbed or worked to dilute any remaining chemical residue.

On newly planted areas, wait until the grass has been moved at least 4 times and has filled in before applying product.



On turf that has been severely thinned due to winter damage, excessive soil moisture, low temperature (below 40°F), scalping, insects, disease, etc., wait until turf has filled in and rooting of stolons is complete before applying.

This product may stain, thus avoid contact with areas such as sidewalks, driveways, etc. If contact with the spray mixture occurs, promptly rinse with water.

PRE-M 3.3 EC turf herbicide treatments are most effective in controlling weeds when adequate rainfall or overhead irrigation is received within 7 days after application.

Weeds Species Controlled: When applied as directed, PRE-M 3.3 EC turf herbicide will control the following weed species:

#### **GRASSES CONTROLLED**

Common Name	Scientific Name
Annual bluegrass	Poa annua
Barnyardgrass	Echinochloa crus-galli
Crabgrass	<i>Digitaria</i> spp.
Fall panicum	Panicum dichotomiflorum
Foxtail	Setaria spp.

Goosegrass

Common Name

## **BROADLEAF WEEDS CONTROLLED**

Eleusine indica

Scientific Name

<u></u>	<del></del>
Common chickweed	Stellaria media
Cudweed	Gnaphalium spp.
Hop clover	Trifolium procumbens
Henbit	Lamium amplexicaule
Knotweed	Polygonum avicularc
Mouseear chickweed	Cerastium vulgatum
Prostrate spurge	Euphorbia supina
Purslane	Portulaca oleracea
Oxalis	Oxalis spp.
Evening primrose	Oenothera biennis

## RATE AND APPLICATION CHART

Turf <u>Species</u>	Weeds <u>Controlled</u>	Rates of PRE-M 3.3 EC turf herbicide	Comments
Northern Grasses:			
Fine fescue Kentucky bluegrass Perennial ryegrass Tall fescue	Barnyardgrass Crabgrass Fall panicum Foxtail Hop clover Prostrate spurge Yellow woodsorrel Cudweed	3.6 to 4.8 pts per acre or 1.3 to 1.8 oz. per 1,000 sq.ft.	Apply in Spring before weeds germinate
	Goosegrass Evening primrose	7.2 pts per acre or 2.6 oz. per 1,000 sq. ft.	Apply in Spring before weeds germinate. Repeat application if necessary in 8 weeks at 3.6 pts. per acre or 1.3 oz. per 1,000 sq. ft.
	Annual bluegrass Common chickweed Mouseear chickweed Henbit	3.6 pts to 4.8 pts per acre or 1.3 to 1.8 oz. per 1,000 sq.ft.	Apply in late Summer to early Fall before weeds germinate
Southern Grasses: Bahia Bermudagrass Centipedegrass St. Augustinegrass Tall fescue Zoysiagrass	Barnyardgrass Crabgrass Fall panicum Foxtail Prostrate spurge Yellow woodsorrel Cudweed	4.2 to 4.8 pts per acre or 1.6 to 1.8 oz. per 1,000 sq ft.	Apply in Spring before weeds germinate. Repeat application if necessary in 8 weeks using 3.6 pts per acro.

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Goosegrass Hop clover Evening primrose	6.4 to 7.9 pts per acre or 2.4 to 2.9 oz. per 1,000 sq. ft.	
Henbit Annual bluegrass Common chickweed Mouseear chickweed	3.6 to 4.8 pts per acre or 1.3 to 1.8 oz. per 1,000 sq. ft.	Apply in late Summer to early Fall before weeds germinate.

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