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557-1994

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PAR EX® SLOW RELEASE FERTILIZER
with 0.275% BARRICADE®

For selective preemergence control of grass and broadleaf weeds in established turfgrasses (excluding golf course putting greens), lawns and landscape ornamentals.

KEEP OUT OF REACH OF CHILDREN
CAUTION

See the following section, Precautionary Statements, Hazards to Humans and Domestic Animals, for additional information.

ACTIVE INGREDIENT:

Prodiamine [N³,N³-Di-n-propyl-2,4 dinitro-6-(trifluoromethyl)-m-phenylenediamine] . . . 0.275%

INERT INGREDIENTS: 99.725%

TOTAL 100.00%

EPA Reg. No. 557-

EPA Est. No. 557-FL-1

EPA Est. No. 557-OH-1

Vigoro Industries, Inc.
P.O. Box 4139
Fairview Heights, IL 62208

BARRICADE® is a registered trademark of Sandoz, Ltd.

NET WT. 50 LBS. (22.7 kg)

ACCEPTED
4 NOV 1993
Under the Federal Insecticide, Fungicide, and Rodenticide Act
EPA Reg. No. 557-1994

July 15

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

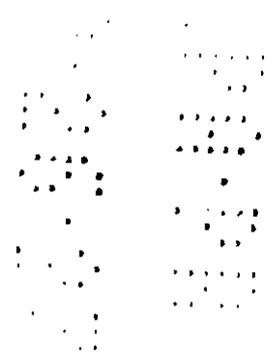
Causes moderate eye injury (irritation). Harmful if inhaled or absorbed through the skin. Avoid contact with skin, eyes or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling. Prolonged or frequently repeated skin contact while handling the product may cause allergic reactions in some individuals.

Statements of Practical Treatment

-) If in eyes: Flush thoroughly with water for several minutes. Get medical attention if irritation persists.
-) If on skin: Wash with soap and water. Rinse thoroughly. Get medical attention if irritation persists.
-) If inhaled: Remove victim to fresh air.

Environmental Hazards

) This product has low solubility in water. At the limits of solubility, this product is not toxic to fish. However, at concentrations above the level of water solubility, it may be toxic to fish. For terrestrial use, 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 sites. Do not contaminate water when disposing of equipment washwaters.



3/15

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PAR EX® SLOW RELEASE FERTILIZER

with 0.275% BARRICADE®

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GUARANTEED ANALYSIS

Total Nitrogen (N)	32.0%
1.5% Ammoniacal Nitrogen	
22.5% Urea Nitrogen	
8.0% Water Insoluble Nitrogen	
} Available Phosphate (P ₂ O ₅)	4.0%
Soluble Potash (K ₂ O)	6.0%

Derived from ammonium phosphate, isobutylidene diurea, urea and muriate of potash.

4 of 15

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

STORAGE:

Store in original container away from other fertilizer, feed, or food stuffs and separated from other pesticides.

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

Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or; puncture and dispose of in a sanitary landfill or at an incineration facility, or; if allowed by state and local authorities, by burning locally. If burned, stay out of smoke.

Paper and plastic containers: Completely empty container into application equipment. Then dispose of empty container in a sanitary landfill or at an incineration facility, or; if allowed by state and local authorities, by burning locally. If burned, stay out of smoke.

Fiber Drums: Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residues into application equipment. Dispose of empty liner in a sanitary landfill or at an incineration facility if allowed by state and local authorities. If the drum cannot be reused, dispose of in a sanitary landfill or by incineration if allowed by state and local authorities.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

This product is a selective preemergence herbicide that provides residual control of many grass and broadleaf weeds in turfgrasses and landscapes. This product controls susceptible weeds by inhibiting weed seeds germination and root development. For most effective weed control this product must be incorporated by 1/2 inch of rainfall, irrigation or shallow mechanical incorporation. Incorporation should take place as soon as possible after application and should not be delayed past 14 days from the date of application.

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) Not for use on plants being grown (1) for sale or other commercial use, (2) for commercial seed production, or (3) for research purposes. For use on plants intended for aesthetic purposes or climatic modification and being grown in ornamental gardens or parks, or on golf courses or lawns and grounds.

Do not apply this product through any type of irrigation system.

Do not apply aeriially.

Do not apply to golf course putting greens.

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6-15

Application Directions

Apply uniformly through suitable calibrated commercial application.

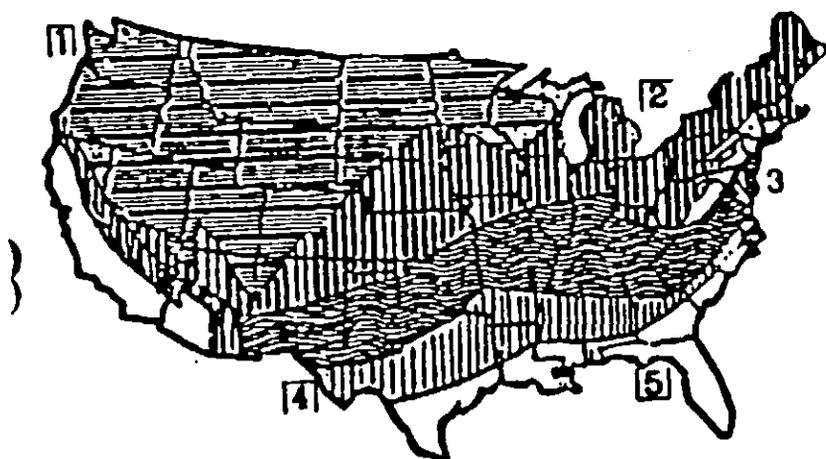
ESTABLISHED TURF

This product is a selective preemergence herbicide that, when properly applied, will control certain grass and broadleaf weeds in established turfgrass and lawns. The species of turfgrass determines the maximum amount of product that may be applied during the year.

Most effective weed control in turfgrasses will be obtained when this product is activated by at least 1/2 inch of rainfall or irrigation within 14 days after application and prior to weed germination. See the map below for approximate crabgrass germination dates.

CRABGRASS SEED GERMINATION DATES

Approximate Date



- 1 After May 30
- 2 After May 10
- 3 After April 20
- 4 After March 20
- 5 Jan 1 to Mar 20

Use Precautions

The following use precautions apply to the use of this product in turfgrasses and lawns:

Application of this product may thin emerged annual bluegrass and newly overseeded grasses.

Do not apply to newly set sod until the following year.

Do not apply to OVERSEEDED TURF for 60 days after seeding or until after the second mowing, which is even longer. Injury to desirable seedlings is likely if the product is applied before seedling secondary roots are in the second inch of soil, not thatch plus soil.

Application of this product to turf stressed by drought, low fertility, or pest damage may result in turf injury.

Disturbing the herbicide barrier with cultural practices such as disking may result in reduced weed control.

Do not apply this product to putting greens, or to areas where dichondra, colonial bentgrass, velvet bentgrass, or annual bluegrass (Poa Annua) are desirable species.

Maximum Annual Rates

This product should not be applied above a maximum annual rate of 545 lbs./A or 12.3 lbs./1000 feet².

Turf Species and Rates

For season long control this product may be applied as a single application, or if needed, followed by a second application for increased length of control. The length of time of residual weed control provided by this product is related to the rate applied. Use the higher rate within the listed range for longer control. Longer control is desirable in areas where crabgrass germinates between January 1 and April 20 (See Crabgrass Seed Germination Data Map).

Select maximum use rate based on turfgrass species. All applications must be made prior to germination of the target weed seeds. This product will not control established weeds.

The rates listed in the table below are for weed control of approximately 2-6 months.

TURF SPECIES AND RATES TABLE

TURF SPECIES:	Maximum Rate of This Product Per Calendar Year Lbs./Acre (lbs./1000 ft.²)
Bermudagrass* Centipedegrass Seashore Paspalum Tall Fescue (including turf-type) Zoysia	545 (12.3)
Kentucky Bluegrass Perennial Ryegrass	364 (8.2)
Creeping Red Fescue St. Augustinegrass	269 (6.4)
Creeping Bentgrass	240 (5.5)

* May be used on newly plugged or sprigged Bermudagrass at rates not to exceed 189 lbs. product per acre or 4.1 lbs. product per 1,000 ft². Newly sprigged or plugged Bermudagrass, stolon rooting may be temporarily retarded. Suppression only of Foxtail, Goosegrass and Rescuegrass due to reduced product rates used in sprigging situations.

- Do not apply more than 273 lbs. of this product per application.
- Do not apply more than 545 lbs. of this product per calendar year.

Fig 15

- If making more than one application, do not apply more than 273 lbs. of this product within any 60 day period.
- Use higher rates of this product to achieve higher levels of fertility and weed control for each turf type.

Weeds Controlled

When used at the recommended rates (see Turf Species and Rates Table) this product will control:

Crabgrass (Large, smooth)	Carpetweed
Annual Bluegrass (<u>Poa Annua</u>)	Common Chickweed (1)
Goosegrass (1)	Common Lambsquarter
	Common Purslane
Annual Foxtails	Henbit
Barnyardgrass	Knotweed
Broadleaf Signalgrass	Pigweed
Johnsongrass (from seed)	Prostrate Spurge
Rescuegrass (3)	Shepherdspurse (2)
	Yellow Woodsorrel (from seed)

Do not exceed the maximum annual application rates recommended for the turf species. All applications must be made prior to germination of weed seeds. This product will not control established weeds.

- (1) In many areas a single application of 240 to 269 lbs./Acre of this product will control goosegrass. However, under heavy goosegrass pressure and/or an extended growing season, apply an initial treatment of 269 lbs/Acre followed after 60 days with a second treatment of 87 to 269 lbs./Acre for season long goosegrass control.
- (2) Winter weeds are best controlled by applications made prior to germination: late summer, fall or winter timings.
- (3) Suppression only.

Overseeding/Reseeding

This product will inhibit the germination of turf species if overseeded/reseeded too soon after application. The interval between application and overseeding/reseeding is dependent on the application rate, soil temperature, and soil moisture. A shorter interval is possible if growing conditions are warm and wet, while a longer interval is needed if conditions are cool and dry. Use the Overseeding/Reseeding Intervals Table below as a guide when choosing the appropriate overseeding/reseeding interval for each situation.

Overseeding/Reseeding Intervals Table:

Overseeding/Reseeding Interval (Months) Based Upon Seeding Method and Predominant Soil Conditions for the Season

This product Rate (lbs./A)	Broadcast Seeding		Drill Seeding	
	Wet & Warm	Cool & Dry	Wet & Warm	Cool & Dry
189	4	6	3	4
364	8	12	6	8
545	12	18	9	12

15

LANDSCAPE ORNAMENTALS

This product is recommended for use on landscape ornamentals. Do not apply more than 269 lbs./A in any 60 day interval, and do not exceed the maximum rate per calendar year of 545 lbs./A.

This product Herbicide will not harm most established ornamental trees, shrubs and flowers. The following species have shown tolerance to this product.

<u>Scientific Name</u>	<u>Common Name</u>
Acer palmatum	Japanese Maple
A. platanoides	Norway Maple
Actinidia chinensis	Kiwi*
Agapanthus africanus	Lily-of-the-Nile
Arctostaphylos densiflora	Vine Hill Manzanita
Arctotheca calendula	Cape Weed
Aucuba japonica	Japanese Aucuba
Barberis gladwynensis	
B. julianae	Wintergreen Barberry
B. mentorensis	Mentor Barberry
B. thunbergii	Japanese Barberry
B. verruculosa	Warty Barberry
Buxus microphylla	Japanese Boxwood
Callistemon viminalis	Weeping Bottlebrush
Calluna vulgaris	Scotch Heather
Carpobrotus edulis	Hottentot Fig (Ice Plant)
Cassia artemisoides	Feathery Cassia
Ceanothus rigidus	Wild Lilac
Chamaecyparis pisifera	False Cypress
Cleyera japonica	Cleyera
Cornus florida	Flowering Dogwood
C. stolonifera	American Dogwood
Cortaderia selloana	Pampas Grass
Cotoneaster apiculatus	Cranberry Cotoneaster
C. buxifolius	
C. dammeri	Bearberry Cotoneaster
C. microphyllus	Rockspray Cotoneaster
Cupressus sempervirens	Italian Cypress
Delasperma alba	White Trailing Ice Plant
Dodonea viscosa	Hop Bush
Elaeagnus pungens	Silverberry
Euonymus fortunei	Wintercreeper Euonymus
E. japonica	Evergreen Euonymus
E. kiautschovica	Spreading Euonymus

*Ornamental species only. Do not use on food producing trees or vines.

Scientific Name

Common Name

Fatsia japonica
 Forsythia intermedia
 F. viridissima
 Gardenia jasminoides
 Hedera helix
 Hibiscus rosa-sinensis
 Ilex cornuta
 I. crenata
 I. opaca
 I. pernyi
 Jasminium nudiflorum
 Juniperus chinensis
 J. conferta
 J. horizontalis
 Juglans sp.
 Justicia brandegeana
 Lagerstromia indica
 Ligustrum amurense
 L. japonicum
 L. lucidum
 Liriope muscari
 Lonicera japonica
 L. tatarica
 Maleophora luteola
 Malus sp.
 Nandina domestica
 Olea europaea
 Ophiopogon japonicus
 Osteospermum fruticosum
 Oxydendrum arboreum
 Persea americana
 Photinia fraseri
 Picea abies
 Pieris japonica

Japanese Aralia
 Border Forsythia
 Greenstem Forsythia
 Gardenia, Cape-Jasmine
 English Ivy
 Chinese Hibiscus
 Chinese Holly
 Japanese Holly
 American Holly
 Winter Jasmine
 Chinese Juniper
 Shore Juniper
 Creeping Juniper
 Walnut*
 Shrimp Plant
 Crepe Myrtle
 Amur Privet
 Japanese Privet
 Glossy Privet
 Big Blue Lily Turf
 Japanese Honeysuckle
 Tatarian Honeysuckle
 Ice Plant
 Crabapple*
 Heavenly Bamboo
 Olive*
 Mondo Grass
 Trailing African Daisy
 Sourwood
 Avocado*
 Frasier's Photinia
 Norway Spruce
 Lily-of-the-Valley Shrub

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Scientific Name

Common Name

Pinus brutia
P. canariensis
P. halepensis
P. nigra
P. radiata
P. thunbergiana
P. strobus
P. sylvestris
Pistachio sp.
Pittosporum rhombifolium
P. tobira
Podocarpus macrophyllus
Prunus laurocerasus
Prunus sp.

Calabrian Pine
Canary Island Pine
Aleppo Pine
Austrian Black Pine
Monterey Pine
Japanese Black Pine
Eastern White Pine
Scotch Pine
Pistachio*
Queensland Pittosporum
Mock Orange
Japanese Yew
English Laurel
Almond, Apricot, Nectarine,
Peach, Plum, and Prune*

Pyracantha coccinea
P. fortuneana
P. koidzumii
Pyrus sp.
Quercus rubra
Raphiolepis indica
Rhododendron
(including Azalea)

Firethorn
Firethorn
Firethorn
Bradford Pear sp.
Red Oak
Indiana Hawthorne
'Coral Bells'
'Formosa'
'Hino-crimson'
'PJM'

Rosa banksiae
Rosmarinus officinalis
Rumohra adiantiformis
Santolina virens
Sedum album
Syzygium paniculatum
Taxus cuspidata
T. media
Thuja occidentalis
Trachelospermum asiaticum
Tsuga canadensis
Viburnum japonicum
v. odoratissimum

'Roseum Elegans'
Lady Bank's Rose
Rosemary
Leatherleaf Fern

Stonecrop
Japanese Boxcherry
Japanese Yew
Yew
American Arborvitae
Star Jasmine
Canada Hemlock
Japanese Viburnum
Sweet Viburnum

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Scientific Name

Common Name

V. plicatum

Japanese Snowball

V. rigidum

Canary Island Viburnum

V. tinus

Laurustinus

V. trilobium

Cranberry Bush

V. wrightii

Dwarf Periwinkle

Vinca minor

Grape*

Vitis sp.

Old Fashioned Weigela

Weigela florida

Spanish Bayonet

Yucca aloifolia

Adam's Needle

Yucca filamentosa

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15715

**LIMITATION OF WARRANTY
AND LIMITATION OF LIABILITY**

NOTICE: Read this Limitation of Warranty and Limitation of Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

It is impossible to eliminate all risks inherently associated with the 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 manner of use or application, all of which are beyond the control of manufacturer or seller. All such risks shall be assumed by buyer or user.

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Manufacturer warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, under normal use conditions, subject to the risks described above. **Manufacturer makes no other express or implied warranty of fitness or of merchantability or any other express or implied warranty.** In no event shall manufacturer or seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product.

Manufacturer and seller offer this product, and buyer and user accept it, subject to the foregoing limitations of warranty and limitation of liability, which may not be modified by any oral or written agreement.

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