| US ENVIRONMENTAL PROTECTION AGENCY OFFICE OF PESTICIDES PROGRAMS REGISTRATION DIVISION (7S-767) WASHINGTON, DC 20460 | EPA REGISTRATION NO. | DA MAK 105 6 1996 | | |
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| | TERM OF ISSUANCE | | | |
| NOTICE OF PESTICIDE: REGISTRATION | NAME OF PESTICIDE PRODUCT | | | |
| (Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended) | A state of the sta | | | |
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| NOTE: Changes in labeling formula differing in substance is submitted to and accepted by the Registration Division price product always refer to the above U.S. EPA registration num On the basis of information furnished by the registrant, the the Federal Insecticide, Fungicide, and Rodenticide Act. | or to use of the label in com nber. | merce. In any correspondence on this | | |
| A copy of the labeling accepted in connection with this Re | gistration/Reregistration is | returned herewith. | | |
| icide in accordance with the Act. The acceptance of any na Act is not to be construed as giving the registrant a right t by others. | | | | |
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SHAW'S TURF FOOD/C. ABGRASS CONTROL BARRICADE 20

ACTIVE INGREDIENT: Prodiamine: [N³,N³-Di-n-propyl-2,4-dinitro-6-(trifluoromethyl)-mphenylenediamine0.20% ACCEPTED **Guaranteed Fertilizer Analysis:** with COMMENTS In EPA Letter Dated 32 % (N) Nitrogen MAR 0 6 1996 Phosphorus 4 % (P₂O₅) Under the Federal Insecticida, Potassium 6 % (K₂O) **Pundicide**, and Rodenticide Act as amended, for the pasticide registered under EPA Reg. No. Nitrogen from: Urea formaldehyde, Urea, Ammonia

- Star

For selective preemergence control of grass and broadleaf weeds in:

- established turf grasses (excluding golf course putting greens) and lawns
- Iandscape ornamentals (including established perennials & wildflower plantings)

KEEP OUT OF REACH OF CHILDREN

CAUTION

See the following section, <u>Precautionary Statements, Hazards To Humans and Domestic</u> <u>Animals</u>, for additional information.

Net Weight:

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EPA Reg. No. 8378-38 EPA Est. No.

> Knox Fertilizer Co. P.O. Box 248 Knox, IN 46634

BARRICADE® is a Registered Trademark of Sandoz, Ltd.

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 material 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

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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. 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.

STORAGE AND DISPOSAL

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

STORAGE

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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

<u>Paper containers</u>: 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.

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

- established turf grasses (e: Juding golf course putting greens) and lawns
- Iandscape ornamentals
- established perennials & wildflower plantings

This product controls susceptible weeds by inhibiting weed seeds germination and root development. Most effective weed control will be obtained when this product is activated by at least 0.5 inch of rainfall or irrigation prior to weed seed germination and within 14 days following application.

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 graze or feed livestock forage cut from areas treated with this product.

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

Do not apply aerially.

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Do not apply to golf course putting greens.

Application Directions

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Apply uniformly through suitable, calibrated commercial application equipment.

ESTABLISHED TURF

This product is a selective preemergence herbicide that, when properly applied, will control certain grass and broadleaf weeds in established turf grasses and lawns. The maximum amount of this product that may be applied per year is given for each turf grass species in the Maximum Annual Rates section of this label.

Most effective weed control in turf grasses will be obtained when this product is activated by at least 0.5 inch of rainfall or irrigation prior to weed seed germination and within 14 days following application. See the map below for approximate crabgrass seed germination dates.

CRABGRASS SEED GERMINATION DATES

Approximate Date

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Use Precautions

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

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

Do not apply to overseeded turf within 60 days after seeding or until after the second mowing, whichever is longer. Injury to desirable seedlings is likely if this product is pplied before seedling secondary roots are in the second inch of soil, not thatch plus soil.

Do not cut treated sod before 120 days after application. Do not apply to newly set sod until the following year.

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 areas where dichondra, colonial bentgrass, velvet bentgrass or annual bluegrass (*Poa annua*) are desirable species.

Rates of Application

This product may be applied as a single application or in sequential applications to control weeds germinating throughout the year. All applications must be made prior to germination of the target weeds. This product will not control established weeds.

Maximum use rate selection should be based on turf species. The length of time of residual weed control provided by this product is related to the rate applied.

Maximum Annual Rates

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This product is recommended for use on the turf grass species listed in the following table. Do not exceed the maximum yearly rate as given in the following table:

| MAXIMUM APPLICATION RATE/CALENDAR YEAR of SHAW'S TURF FOOD/CRABGRASS CONTROL BARRICADE 20 by Turf Grass Species ¹ | | | | | |
|---|--------------------------|---------|--|--|--|
| Turf Species: | Ib SHAW'S TURF FOOD 20/A | lb ai/A | | | |
| Bermudagrass ² Bahiagrass Centipedegrass Seashore Paspalum St. Augustinegrass ³ Tall Fescue (including turf-type) Zoysia | 750 | 1.5 | | | |
| Buffalograss Kentucky Bluegrass Perennial Ryegrass | 500 | 1.0 | | | |
| Creeping Red Fescue | 370 | 0.75 | | | |
| Creeping Bentgrass | 330 | 0.65 | | | |

These are the maximum rates per calendar year by species limitations.

- ² May be used on newly sprigged or plugged Bermudagrass at rates not to exceed 260 lb/A. 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.
- ³ Use at an initial rate of 370 to 500 lb/A per application followed by sequential applications at doses that would not exceed the maximum annual application rate of 750 lb/A/yr.
- Do not apply more than 750 lb of this product per calendar year.
- Use higher rates of this product to achieve higher levels of fertility and weed control for each turf type.

Weeds Controlled

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When used in accordance with this label this product will provide control of the following weeds:

Barnyardorass Bluegrass, Annual (Poa annua) Crabgrass (Large, Smooth) Crowfootgrass Cupgrass, Woolly Foxtails, Annual Goosegrass¹ Itchgrass Johnsongrass (from seed) Junclerice Lovegrass Panicum (Texas, Fall, Browntop) Rescuegrass³ Signalgrass, Broadleaf Sprangletop Witchgrass

Carpetweed Chickweed, Common Chickweed, Mouseear (from seed) Henbit Knotweed Kochia Lambsquarter, Common Pigweed Purslane, Common Pusley, Florida Shepherd's Purse² Speedwell, Persian Spurge, Prostrate Woodsorrel, Yellow (from seed)

In many areas a single application of 330 to 750 lb/A of this product will control goosegrass. However, under heavy goosegrass pressure and/or an extended growing season, most affective weed control may be obtained by making an initial application of 330 to 500 lb/A followed after 60 to 90 days by a second application at doses that would not exceed those given in the Maximum Annual Rate Table. Do not exceed the maximum rate for turf grass species listed in the Maximum Annual Rate Table above.

² Applications for this weed should be made in late summer, fall or winter prior to germination.

³ Suppression only.

Sequential applications may be made so long as the total amount of product applied does not exceed the maximum annual application rates recommended for each turf species. All applications must be made prior to germination of the weed seeds.

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WHEN TO APPLY AFTER OVERSEEDING TURF

Do not apply to overseeded turf within 60 days after seeding or until after the second mowing, whichever is longer. Injury to desirable seedlings is likely if BARRICADE is applied before seedling secondary roots are in the second inch of soil, not thatch plus soil.

WHEN TO OVERSEED AFTER APPLICATION

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BARRICADE will inhibit the germination of turf species if overseeded too soon after application. Follow rates and intervals in the table below for best overseeding/reseeding results.

| | SHAW'S TURF FOOD 20 Rate (lb/A) | | Interval Before Overseeding | |
|---------|------------------------------------|-------|-----------------------------|-------|
| Product | ai | North | Transition | South |
| 250 | .50 | 4 mo | 4 mo | 4 mo |
| 330 | .66 | 5 mo | 4 mo | 4 mo |
| 370 | .74 | 6 mo | 5 mo | 5 mo |
| 400 | .80 | | 6 mo | 6 mo |
| 500 | 1.00 | | 7 mo | 7 mo |
| 570 | 1.14 | | | 9 mo |
| 650 | 1.30 | | | 10 mo |

LANDSCAPE ORNAMENTALS (including Established Parennials and Wildflower Plantings)

This product may be applied for residual preemergence weed control in ornamentals.

Use Rates

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Apply this product at 330 to 750 lb/A in fall and/or spring. Use higher rates of application for longer control periods. Sequential or single applications are allowed so long as the total amount of product applied does not exceed the maximum annual application rate of 750 lb/A/yr.

Application Timing and Information

This product may be applied to newly transplanted and established ornamentals as a broadcast, over the top or directed application. Irrigation or rainfall soon after application will wash residues off plant foliage and activate this product in the soil.

This product may be applied at any time to established plants. Delay application to allow soil to settle around new transplants and water thoroughly before applying this product. Apply this product after cuttings form roots and become established. Apply before budding/grafting or after buds/grafts have taken to avoid any inhibition of the tissue union.

This product is a preemergence herbicide and will not control emerged weeds. Most effective weed control in ornamentals will be obtained when this product is activated by at least 0.5 inch of rainfall or irrigation, or with shallow (1 to 2 inch) mechanical incorporation, prior to weed seed germination and within 14 days following application.

Best weed control is obtained when this product is applied to soil free of clods, weeds, and debris such as leaves. Prior to application of this product, control existing vegetation by hand weeding, cultivation or the use of an appropriate postemergence herbicide.

Tolerant Ornamental Species

This product will not harm most ornamental trees, shrubs and flowers. The species listed below are tolerant to this product. Best results will be obtained when this product is uniformly applied to the soil surface; avoid applying to ornamental shoots which may defeat the effort to get uniform distribution on the soil surface. This product may be applied over the top of these species without injury.

Scientific name

Abies spp.

Acer palmatum A. platanoides Actinidia chinensis Agapanthus africanus Arctostaphylos densiflora Arctotheca calendula Aucuba japonica Barberis gladwynensis B. julianae B. mentorensis B. thunberaii B. verruculosa Buxus microphylla Callistemon viminalis Calluna vulgaris Carpobrotus edulis Cassia artemisoides Ceanothus rigidus Chamaecyparis pisifera Cleyera japonica Citrus spp. Cornus florida C. stolonifera Cortaderia selloana Cotoneaster apiculatus C. buxifolius C. dammeri C. microphyllus Cretaegus spp. Cupressus sempervirens Delasperma alba

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Common name

Fir species ** (Balsam, Fraser, Noble, etc.) Japanese Maple Norway Maple Kiwi* Lily-of-the-Nile (African Lily) Vine Hill Manzanita Cape Weed Japanese Aucuba Barberry Wintergreen Barberry Mentor Barberry Japanese Barberry Warty Barberry Japanese Boxwood Weeping Bottlebrush Scotch Heather Hottentot Fig (Ice Plant) Feathery Cassia Wild Lilac False Cypress Clevera Citrus species* Flowering Dogwood American Dogwood Pampas Grass Cranberry Cotoneaster Cotoneaster Bearberry Cotoneaster **Rockspray Cotoneaster** Hawthorne **Italian Cypress** White Trailing Ice Plant

*Ornamental species only. Do not use on food producing trees or vines. **For use on landscape ornamental sites.

Scientific name

-------Dodonea viscosa Elaeagnus pungens Euonymus fortunei E. japonica E. kiautschovica Fatsia iaponica Forsythia intermedia F. viridissima Gardenia jasminoides Gladiolus spp. Hedera helix Hibiscus Hibiscus rosa-sínensis Ilex cornuta I. crenata I. opaca I. pernyi I. vomitoria Iris spp. 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 Magnolia spp. Maleophora luteola Malus sp. Nandina domestica Narcissus spp. Nerium spp.

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******* Hop Bush Silverberry Wintercreeper Japanese Spindle Tree (Evergreen Euonymus) Spreading Euonymus Japanese Aralia **Border Forsythia** Greenstem Forsythia Gardenia, Cape-Jasmine Gladiolus species * * English Ivy Rose of Sharon** Chinese Hibiscus Chinese Holly Japanese Holly American Holly Holly Yaupon Iris species** Winter Jasmine **Chinese** Juniper Shore Juniper Creeping Juniper Walnut* Shrimp Plant Crepe Myrtle Amur Privet Japanese Privet **Glossy Privet (Waxleaf) Big Blue Lily Turf** Japanese Honeysuckle Tatarian Honeysuckle Magnolia species * * Ice Plant Crabapple* Heavenly Bamboo Narcissus species * * Oleander

Common name

*Ornamental species only. Do not use on food producing trees or vines. **For use on landscape ornamental sites.

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Scientific name

Olea europa Ophiopogon japonicus Osteospermum fruticosum Oxydendrum arboreum Persea americana Photinia fraseri Picea spp. Pieris japonica Pinus brutia P. canariensis P. elliottii P. halepensis P. nigra P. palustrus P. radiata P. strobus P. sylvestris P. taeda P. thunbergiana P. virginiana Pistachio sp. Pittosporum rhombifolium P. tobira Podocarpus macrophyllus Prunus laurocerasus Prunus sp.

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Pseudotsuga menziesii Pyracantha coccinea P. fortuneana P. koidzumii Pyrus sp. Quercus spp. Raphiolepis indica

Common name Olive* Mondo Grass **Trailing African Daisy** Sourwood Avocado* Frasier's Photinia (Redtip) Spruce species** (Colorado Blue, Norway, etc.) Lily-of-the-Valley Shrub **Calabrian Pine Canary Island Pine Slash Pine Aleppo Pine** Austrian Black Pine Longleaf Pine **Monterey Pine** Eastern White Pine **Scotch Pine Loblolly Pine** Japanese Black Pine Virginia Pine Pistachio* Queensland Pittosporum Japanese Pittosporum Japanese Yew English Laurel Almond, Apricot, Nectarine, Peach, Plum and Prune* Douglas Fir** Firethorn (Scariet) Firethorn Firethorn Bradford Pear sp. Oak species

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

**For use on landscape ornamental sites.

Indian Hawthorne

Scientific name

Rhododendion (including Azalea)

Rosa banksiae Rosmarinus officinalis Santolina virens Sedum album Syzygium paniculatum Taxus cuspidata T. media Thuja occidentalis Trachelospermum asiatum Tsuga canadensis Tulip spp. Viburnum japonicum V. odoratissimum V. plicatum V. rigidum V. tinus V. trilobium V. wrightii Vinca major Vinca minor Vitis sp. Weigela florida Yucca aloifolia Y. filamentosa

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Common name

'Coral Bells' 'Formosa' 'Hino-crimson' 'PJM' 'Roseum Elegans' Lady Bank's Rose Rosemary Stonecrop Japanese Boxcherry Japanese Yew Yew American Arborvitae Star Jasmine Canada Hemlock Tulip species Japanese Viburnum Sweet Viburnum Japanese Snowball Canary Island Viburnum Laurustinus **Cranberry Bush** Leatherleaf Viburnum Vinca **Dwarf Periwinkle** Grape* **Old Fashioned Weigela** Spanish Bayonet Yucca, Adam's Needle

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