

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

August 11, 2023

Jasmine Ponce Regulatory Compliance Specialist The Andersons, Inc. PO Box 119 Maumee, OH 43537

Subject: Registration Review Label Mitigation for Isoxaben

Product Name: The Andersons 2.0% Treflan & 0.5% Gallery Herbicides

EPA Registration Number: 9198-252 Application Date: November 2, 2022

Decision Number: 588597

Dear Jasmine Ponce:

The Agency, in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Isoxaben Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently

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approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Caleb Carr via email at <arr.caleb@epa.gov.

Sincerely,

Linda Arrington, Branch Chief Risk Management and Implementation Branch 4

Pesticide Re-Evaluation Division Office of Pesticide Programs

Enclosure

(Base label)

Trifluralin	GROUP	3	HERBICIDE
Isoxaben	GROUP	<u>29</u>	HERBICIDE

The Andersons 2.0% Treflan & 0.5% Gallery Herbicides

A selective preemergence herbicide for control of certain broadleaf weeds and annual grasses in:

- Landscape Ornamentals
- Christmas Tree Plantations
- Container Grown Ornamentals
- Field Grown Ornamentals
- Groundcovers/Perennials
- Non-Bearing Fruit and Nut Trees
- Non-Bearing Vineyards
- Non-Cropland

Optional marketing information:



- DGPro® Dispersible Carrier
- Utilizes DGPro® Dispersing Granule, which disperses upon contact with moisture.

Active Ingredients:

Contains 1.25 lb active ingredient per 50 lb bag.

ACCEPTED

08/11/2023

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 2400 250

9198-252

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 the label, find someone to explain it to you in detail.)

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Causes moderate eye irritation. Harmful if swallowed or inhaled. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

Avoid breathing dust or spray mist and contact with eyes or clothing. Wash thoroughly with soap and water after handling.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants
- · Shoes plus socks

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

Engineering Controls

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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.
- Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

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 the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have a 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 inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-757-8951 for emergency medical treatment information.

Environmental Hazards

This pesticide is extremely toxic to freshwater marine, and estuarine fish and aquatic invertebrates including shrimp and oyster. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply in a manner which will directly expose canals, lakes, streams, ponds, marshes or estuaries to aerial drift. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Sweeping any product that lands on a driveway, sidewalk, or street, back onto the treated area of the lawn or garden will help to prevent run off to water bodies or drainage systems.

Ground Water Advisory: This pesticide has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

This pesticide may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soil and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of isoxaben from runoff water and sediment.

NON-TARGET ORGANISM ADVISORY STATEMENT: This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for Directions for Use.

In case of emergency endangering health or the environment involving this product, call 1-800-757-8951. If you wish to obtain additional product information, visit our web site at www.andersonsinc.com.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 9198-252 EPA Est. 9198-OH-1M, 9198-OH-2B, 9198-AL-001A Underlined letter is first letter used in run code on bag

Net Weight XX lbs. (XX kg)

(Label booklet cover)

Trifluralin	GROUP	3	HERBICIDE
Isoxaben	GROUP	29	HERBICIDE

The Andersons 2.0% Treflan & 0.5% Gallery Herbicides

A selective preemergence herbicide for control of certain broadleaf weeds and annual grasses in:

- Landscape Ornamentals
- Christmas Tree Plantations
- Container Grown Ornamentals
- Field Grown Ornamentals
- Groundcovers/Perennials
- Non-Bearing Fruit and Nut Trees
- Non-Bearing Vineyards
- Non-Cropland

Optional marketing information:



- DGPro® Dispersible Carrier
- Utilizes DGPro® Dispersing Granule, which disperses upon contact with moisture

Active Ingredients:

 $\begin{array}{llll} & \text{trifluralin:} & \alpha,\alpha,\alpha-\text{trifluoro-2,6-dinitro-}N, & N-\text{dipropyl-}p\text{-toluidine} & 2.0\% \\ & \text{isoxaben:} & N-[3-(1-\text{ethyl-1-methylpropyl})-5-\\ & \text{isoxazolyl}]-2,6-\text{dimethoxybenzamide} & 0.5\% \\ & \text{Other Ingredients} & 97.5\% \\ & \text{Total} & 100.0\% \end{array}$

Contains 1.25 lb active ingredient per 50 lb bag.

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Refer to inside of label booklet for additional precautionary information including Directions for Use.

Notice: Read the entire label. Use only according to label directions.

In case of emergency endangering health or the environment involving this product, call 1-800-757-8951. If you wish to obtain additional product information, visit our web site at www.andersonsinc.com.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 9198-XXX

EPA Est. 9198-OH-1M, 9198-OH-2B, 9198-AL-001A Underlined letter is first letter used in run code on bag

Net Weight XX lbs. (XX kg)

(Page 1 through end)

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Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants
- · Shoes plus socks

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

Engineering Controls

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marshes or estuaries to aerial drift. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Sweeping any product that lands on a driveway, sidewalk, or street, back onto the treated area of the lawn or garden will help to prevent run off to water bodies or drainage systems.

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This pesticide may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soil and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of isoxaben from runoff water and sediment.

NON-TARGET ORGANISM ADVISORY STATEMENT: This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

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.

This product must be soil-incorporated within 24 hours of application either by mechanical incorporation or at least 0.5 acre inch of water (rainfall, irrigation). If a second incorporation is needed it should be delayed 3 to 5 days after the first incorporation and be completed prior to planting.

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 of this label about personal protective equipment (PPE), and restricted entry interval. The requirements in the box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under 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 butyl rubber 211 mils; or natural rubber 214 mils; or neoprene rubber 214 mils; or nitrile rubber 214 mils
- · Shoes plus socks

Non-Agricultural Use Requirements

The requirements of 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.

For applications in landscape settings and in non-cropland sites, do not enter or allow others to enter the treated area until dusts have settled.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Keep out of reach of children and animals. Store in original container only. Store in cool, dry place and avoid excess heat.

PESTICIDE DISPOSAL: Wastes resulting from the use of the product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

General Information

This product is a preemergence product for control of certain broadleaf weeds and annual grasses in container and landscape ornamentals, nursery stock, Christmas trees, groundcovers/perennials, non-bearing fruit and nut trees, non-bearing vineyards and non-cropland areas. Apply this product anytime prior to germination of target weeds, or immediately after cultivation. Length of weed control will vary with rate of this product applied, weed population, potting media or soil conditions, temperature, watering regime, and other factors. Following application, user should monitor and observe level of weed control overtime to determine when additional applications may be needed

General Use Precautions and Restrictions

In Arizona: The state of Arizona has not approved this product for use on plants grown for agricultural/commercial production; such as on Christmas tree plantations, container grown or field grown ornamentals, non-bearing fruit and nut trees and non-bearing vineyards.

This product controls weeds growing from seed. This product does not control established weeds, weeds growing from stolons, rhizomes, or root pieces. Existing weeds should be controlled by cultivation or with postemergence herbicides. Weed residues, prunings and trash should be removed or thoroughly mixed into soil prior to treatment. Soil should be in good condition and free of clods at the time of application. A single rainfall or sprinkler irrigation of 0.5 inches or more, or flood irrigation is required to activate this product. Optimum weed control is obtained when this product is activated within 3 days of application. If rainfall or irrigation does not occur within 3 days of application and tillage is possible, this product may be activated using cultivation equipment capable of uniformly mixing the herbicide into the upper 1 to 2 inches of soil. Failure to activate this product within 3 days of application may result in erratic control of annual grasses. Do not apply when wind conditions favor drift of this products granules from the target area.

Repeat applications at 150 lb per acre and higher should not be made sooner than 60 days after a previous application of this product. Do not apply over 600 pounds per acre total of this product within a 12-month period.

Tolerance of turfgrass adjacent to ornamental plantings: Accidental application to turf may occur when applying this product to ornamental plantings. This product is not recommended for weed control in turfgrasses, but turfgrasses are generally tolerant to small amounts of this product that fall outside of the intended area of application.

Not for sale, distribution or use in New York State.

Do not aerially apply this product.

Do not apply The Andersons 2.0% Treflan & 0.5% Gallery Herbicides to turfgrass grown for seed.

Treatment species not listed on the label for this product

Users who wish to use this product on plant species not recommended on this label may determine the suitability for use by treating a small number of such plants at a recommended rate. Prior to treatment of larger areas, the treated plants should be observed for any sign of herbicidal injury for during 30 to 60 days of normal growing conditions to determine if the treatment is safe to the target plant species. The user assumes responsibility for any

plant damage or other liability resulting from use of this product on plant species not recommended on this label.

Application Instructions

Apply this product using a drop or rotary-type spreader designed to apply granular herbicides or insecticides. Calibrate application equipment prior to use according to manufacturer's directions. Check frequently to be sure equipment is working properly and distributing granules uniformly. Do not use spreaders that apply material in narrow concentrated bands. Avoid skips or overlaps as poor weed control or crop injury may occur. More uniform application may be achieved by spreading half of the required amount of product over the area and then applying the remaining half in swaths at right angles to the first.

Application techniques for applying this product

- When using a drop-type spreader, a splashboard mounted under the hopper will provide more even granule distribution.
- A chain fastened to the side of the spreader and allowed to drag on the soil surface can be used to mark the edge of the treated swath and help prevent skips or overlaps.
- For treating smaller areas or rows of nursery stock or ornamental beds, a hand held or push-type rotary applicator such as a whirlybird or cyclone unit is recommended. For hand held units, walk and turn the crank at a constant rate of speed.
- A shaker-type applicator made from a small container with holes punched in the bottom is recommended for small, difficult to treat areas. Carefully measure the amount of product needed to avoid over application.
- The weight-to-volume conversion table below provides equivalent amounts of this product.

Broadcast Rates

Rate	Amount/	1000 sq ft	Amount/	/100 sq ft
lb/Acre	(lb)	(quarts)	(lb)	(cups)
100	2.30	1.75	0.23	0.7
150	3.45	2.60	0.35	1.0
200	4.60	3.50	0.46	1.4

1 lb of this product = 0.75 quart = 3 cups

WEED RESISTANCE MANAGEMENT

For resistance management, The Andersons 2.0% Treflan & 0.5% Gallery Herbicides which is both a Group 3 and Group 29 herbicide based on the mode of action classification system of the Weed Science Society of America.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different modes of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product, users should:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- If using post-emergence herbicides or tank mixes, control weeds early when they are relatively small.
- Apply full rates of this product for the most difficult to control weed in the field at the specified time to minimize weed escapes.
- Scout fields after application to detect weed escapes or shifts in control of weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed to your local company representative, local retailer, or county extension agent.
- Contact your local company representative, crop advisor, or extension agent to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective modes of action for each target weed.
- If resistance is suspected, treat weed escapes with an herbicide having a mode of action other than Group

3 and/or Group 29 use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.

- Suspected herbicide-resistant weeds may be identified by these indicators:
- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum herbicide with other mode of action as a foundation in a weed control program, if appropriate.
- Utilize sequential applications of herbicides with alternative modes of action.
- Rotate the use of this product with non-Group 3 and/or Group 29 herbicides.
- Avoid making more than two sequential applications of this product and any other Group 3 and/or Group 29 herbicides within a single growing season unless mixed with an herbicide with a different mode of action with an overlapping spectrum for the difficult-to-control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields to reduce weed seed production.

BEST MANAGEMENT PRACTICES

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is recommended. A diversified weed management program may include the use of multiple herbicides with different modes of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistant weeds. Scouting after herbicide application is important because it can facilitate the early identification of weed shifts and/or weed resistance and thus provide direction on future weed management practices. One of the best ways to contain resistant weed populations is to implement measures to avoid allowing weeds to reproduce by seed or to proliferate vegetatively. Cleaning equipment between sites and avoiding movement of plant material between sites will greatly aid in reducing the spread of resistant weed seed.

Weeds Controlled or Suppressed

Weeds controlled when applied at 100 lb per acre (2.3 lb per 1000 sq ft):

Common NameScientific Nameaster, slenderAster exilisbarnyardgrassEchinochloa crus-galli

bluegrass, annual Poa annua

bursage, annual

celery, wild

chickweed, common

clover, white

crabgrass

Ambrosia acanthicarpa

Apium leptophyllum

Stellaria media

Trifolium repens

Digitaria spp.

crabgrass

cudweed, purple

cupgrass, southwestern

fiddleneck, coast

filaree, redstem

fleabane, blackleaved

fleabane, dwarf
foxtail, yellow
groundcherry, lanceleaf
henbit
horseweed
junglerice

Conyza ramosissima
Setaria glauca
Physalis lanceifolia
Lamium amplexicaule
Conyza canadensis
Echinochloa colonum

knotweed, prostrate Polygonum aviculare lambsquarters, common Chenopodium album

mallow, little Malva parviflora
mustard, Indian Brassica juncea
mustard, wild Sinapis arvensis
nightshade, black Solanum nigrum
oat, wild Avena fatua

panicum, fall Panicum dichotomiflorum
pepperweed, Virginia Lepidium virginicum
pigweed Amaranthus spp.
pineappleweed Matricaria matricarioides

plantain, slender purslane, common Portulaca oleracea radish, wild Raphanus raphanistrum ragweed, common Ambrosia artemisiifolia rocket, London Sisymbrium irio rockpurslane, desert Calandrinia ciliata

shepherdspurse Capsella bursa-pastoris sibara Sibara virginica

smartweed, Pennsylvania Polygonum pensylvanicum

sowthistle, annual Sonchus oleraceus speedwell, purslane Veronica peregrina sprangletop, Mexican Leptochloa univervia telegraphplant Heterotheca grandiflora

thistle, Russian Salsola iberica witchgrass Panicum capillare

Weeds controlled when applied at 150 lb per acre (3.5 lb per 1000 sq ft):

Common Name Scientific Name

aster, heath
bittercress
bittercress, hairy
brassbuttons, southern

Aster ericoides
Cardamine oligosperma
Cardamine hirsuta
Cotula australis

carrot, wild Daucus carota chamberbitter Phyllanthus urinaria

chickweed, mouseear
dandelion
declipta
fireweed
foxtail, giant

Cerastium vulgatum
Taraxacum officinale
Eclipta prostrata
Erechtites hieracifolia
Setaria faberi

foxtail, giant Setaria faberi
galinsoga, hairy Galinsoga ciliata
geranium, Carolina Geranium carolinianum
groundsel, common Senecio vulgaris
ladysthumb Polygonum persicaria
lettuce, prickly Lactuca serriola

lettuce, prickly
lovegrass
lovegrass
mallow, dwarf
marestail
mayweed
morningglory, ivyleaf

Lactuca serriola
Eragrostis spp.
Malva rotundifolia
Hippuris vulgaris
Anthemis cotula
Ipomoea hederacea

mustard, black Brassica nigra pennywort Hydrocotyle spp. phyllanthus, long-stalk Phyllanthus tenellus plantain, bracted Plantago aristata plantain, broadleaf Plantago major plantain, buckhorn Plantago lanceolata pokeweed, common Phytolacca americana rockpurslane, redmaids Calandrinia ciliata var.

menziesii

ryegrass, annual
sida, prickly
sorrell, red
speedwell, thymeleaf
spurge, hyssop

Lolium multiflorum
Sida spinosa
Rumex acetosella
Veronica serpyllifolia
Euphorbia hyssopifolia

spurge, spotted Euphorbia maculata sweetclover, yellow Melilotus officinalis tansymustard, green Descurainia pinnata velvetleaf Abutilon theophrasti

woodsorrel, yellow Oxalis stricta

Weeds controlled when applied at 200 lb per acre (4.6 lb per 1000 sq ft):

Common NameScientific Namebarley, hareHordeum leporinumbromegrassBromus spp.

burclover, California

cheat

Medicago polymorpha

Bromus secalinus

datura Datura spp.

dogfennel Eupatorium capillifolium

eveningprimroseOenothera spp.fescue, rattailVulpia myurosfilaree, whitestemErodium moschatumgoosefoot, nettleleafChenopodium murale

goosegrass Eleusine indica jimsonweed Datura stramonium knotweed, silversheath Polygonum argyrocoleon

kochia Kochia scoparia
medic, black Medicago lupulina
mullein, turkey Eremocarpus setigerus

nettle, burning Urtica urens nettle, stinging Urtica dioica oxtongue, bristly Picris echioides pimpernel, scarlet Anagallis arvensis sandbur, field Cenchrus incertus signalgrass Brachiaria spp. sowthistle, spiny Sonchus asper spurge, petty Euphorbia peplus spurge, prostrate Euphorbia humistrata stinkgrass Eragrostis cilianensis sunflower Helianthus spp. swinecress Coronopus didymus thistle, musk Carduus nutans willoweed, panicle Epilobium paniculatum woodsorrel, creeping Oxalis corniculata

Weeds partially controlled or suppressed when applied at 200 lb per acre (4.6 lb per 1000 sq ft):

Common Name Scientific Name bindweed, field Convolvulus arvensis Mollugo verticillata carpetweed Rumex crispus dock, curly johnsongrass (seedling) Sorghum halepense mallow. Venice Hibiscus trionum milkweed, honeyvine Ampelamus albidus morningglory, tall Ipomoea purpurea panicum, Texas Panicum texanum pusley, Florida Richardia scabra shattercane Sorghum bicolor

Uses

Ornamental Plantings

This product is recommended as a preemergence treatment for control of certain broadleaf weeds and annual grasses in container grown ornamentals, landscape ornamentals, field grown ornamentals, ground covers/perennials, Christmas trees, non-bearing fruit and nut crops, and non-bearing vineyards. Apply this product anytime prior to germination of target weeds, or immediately after cultivation.

Refer to the General Information section of this label for General Use Precautions and information on application, application rates and weeds controlled.

Special Use Precautions:

To avoid possible injury, do not apply this product to:

- nursery, forest, or Christmas tree: seedling beds, cutting beds, or transplant beds.
- · nursery seedbeds or forest or Christmas tree seedling transplant beds.
- unrooted liners or cuttings that have been planted in pots for the first time.
- · pots less than four inches wide.
- bedding plants or areas where bedding plants will be planted or transplanted within one year following application.
- · groundcovers until they are established and well rooted.

Do not apply This product to newly transplanted ornamentals, nursery stock, Christmas trees, groundcovers, non-bearing fruit and nut trees and non-bearing vineyards until soil or potting media has been settled by packing and irrigation or rainfall and no cracks are present or injury may occur.

Repeat applications at 150 lb per acre and higher should not be made sooner than 60 days after a previous application of this product. Do not apply over 600 lb per acre total of this product within a 12-month period.

Where loss of stand has occurred in field grown ornamentals, use untreated soil as fill around roots when replacing plants or injury may occur.

Note: Injury on the following plant species has been observed following applications of this product and use is not recommended.

Common Name Scientific Name

ballerina cranesbill Geranium cinereum 'Ballerina'

bertram anderson lingwort Pulmonaria longifolia

bugle Ajuga spp.

cajeput tree Melaleuca guinguenervia

candytuft *Iberis* spp.

Carolina rhododendron Rhododendron carolinianum dwarf burning bush Euonymus alatus 'compacta'

foxglove Digitalis purpurea green yucca Yucca recurvifolia hydrangea Hydrangea spp. luxuriant bleeding heart Dicentra luxuriant mountain sandwort Arenaria montana mustard Brassica spp. oak leaf acanthus Acanthus mollis

prince of wales juniper Juniperus horizontalis 'Prince of Wales'

purple coneflower Echinacea purpurea

roseum elegans rhododendron Rhododendron catawbiense 'Roseum

elegans'
Euphorbia spp.
Sedum spp.
Phlox paniculata
Gypsophila paniculata

Vinca minor 'Atropurpurea'

white festival baby's breath wine periwinkle

spurge

stonecrop

summer phlox

This product may be used on the following established plant species (Note: Limitations on recommended treatment methods):

Trees

Recommended Treatment Method: C = Container Grown F = Field Grown

Scientific Name	Common Name	r – Fleid Gi
Abies balsamea	fir, balsam	C, F
Abies concolor	fir, white	F
Abutilon hybridum	albus-flowering maple	C, F
•	luteus-flowering maple	C, F
	roseus-flowering maple	C, F
	tangerine-flowering maple	C, F
	vesuvius red-flowering maple	F
Acer gimmala	flame maple	F
Acer rubrum	red maple	F
	red sunset maple	F
Acer saccharinum	silver maple	C, F
Alsophila australis	Australian tree fern	C, F
Areacastrum romanzoffianum	queen palm	C, F
Betula nigra	birch, river	C, F
Betula papyrifera	paper birch	F
Brachychiton populneus	bottle tree	C, F
Bucida buceras	black olive	F
Ceratonia siliqua	carob	F
Cercis canadensis	redbud	C, F
Chamaecyparis obtusa	filicoides-fernspray cypress	F
Chamaecyparis obtusa	gracilis-slender hinoki cypress	F
Chamaecyparis pisifera	sawara-false cypress squarrosa-moss cypress	F F
Chamaedorea cataractarum		F
Criamaeuorea calaractarum	cat palm	C, F
Chamaedorea costaricana	palm palm	С, F С, F
Chamaedorea elegans	parlor palm	C, F
Cornus florida	cloud nine dogwood	C, F
Comas nonaa	dogwood, flowering	C, F
Crataegus viridis	green hawthorn	5, i
Cryptomeria japonica	cryptomeria, Japanese	C, F
Cupaniopsis anacardioides	carrot wood	F
Cupressocyparis x 'Emerald Isle'	emerald island leyland cypress	C, F
Cupressus arizonica	Arizona cypress	C, F
Cupressus glabra	Arizona cypress	F
Cupressus sempervirens	Italian cypress	C, F
Dicksonia antarctica	Tasmanian tree fern	C, F
Elaeagnus angustifolia	Russian olive	C, F
Elaegnus x 'Gilt edge'	gilt edge silverberry	Ć, F
Eucalyptus camaldulensis	red gum eucalyptus	F
Eucalyptus cinerea	eucalyptus, mealy	F
	silver dollar eucalyptus	F
Eucalyptus microtheca	coolibah tree	C, F F
Eucalyptus sideroxylon	eucalyptus, red ironbark	F
Figure hamismains	£	0.5
Ficus benjamina	ficus	C, F
Fraxinus udhei	mini ficus shamel ash	C, F C, F
Ginkgo biloba	ginkgo (maidenhair tree)	6, i
Gleditsia triacanthos	honey locust	F
	shademaster honey locust	F
Heteromeles arbutiflora	toyon	F
Illicium floridanum	Florida anise-tree	C, F
Juniperus virginiana	redcedar, eastern	C, F

Liquidambar styraciflua	sweetgum, American	F
Magnolia grandiflora	magnolia, southern	C, F
Morus alba	white mulberry	F
Musa aluminata	banana	C, F
Oxydendrum arboreum	sourwood	C, F
Picea abies		C, F
r icea abies	pendula-weeping Norway spruce	C, F
	repens-spreading Norway spruce	
Diago glavas	spruce, Norway	C, F
Picea glauca	conica-dwarf Alberta spruce	C, F F
Picea glauca conica	dwarf Alberta spruce	-
Picea pungens	dwarf globe blue spruce	C, F
	glauca-Colorado blue spruce	C, F
	hoopsii-hoop's blue spruce	C, F
	koster-koster blue spruce	F
Pinus aristata	bristlecone pine	F
Pinus canariensis	canary island pine	F
Pinus contorta	shore pine, beach pine	F
Pinus eldarica	eldarica pine	C, F
Pinus leucodermis	Bosnian pine	Ć, F
Pinus mugo	pumilio-shrubby swiss mountain pine	C, F
Pinus nigra	Austrian black pine	C, F
Pinus radiata	monterey pine	F.
Pinus strobus	eastern white pine	C, F
Pinus strobus	white pine	C, F
	columnar Scotch pine	C, F
Pinus sylvestris	Scotch pine	C, F
Pinus thunbergiana	Japanese black pine	C, F
Platanus occidentalis	American sycamore	F, I
Platanus racemosa	Califorina sycamore	F
	•	F
Podocarpus spp.	podocarpus	F
Populus deltoides	cottonwood	-
Prosopis chilensis	Chilean mesquite	C, F
Prunus yedoensis	yoshino flowering cherry	F
Quercus ilicifolia	bear oak	F
Quercus palustris	pin oak	F _
Quercus phellos	willow oak	C, F
Quercus rubra	red oak	C, F
Quercus virginiana	live oak	C, F
Salix babylonica	babylon weeping willow	F
	corkscrew willow	F
Sequoiadendron giganteum	giant sequoia	F
Swietenia mahogani	mahogany	F
Tabebuia caraiba	yellow tab	F
Tsuga canadensis	eastern hemlock	C, F
Ulmus parvifolia	Chinese elm	F.
Washingtonia robusta	Mexican fan palm	F.
		•

Shrubs

Convolvlus cneorum

Recommended Treatment Method C = Container Grown F = Field Grown

C.F

Scientific Name Common Name Abelia grandiflora edward goucher abelia C, F glossy abelia C, F abyssinica acacia Acacia abyssinica C, F Acacia redolens acacia, prostrate Acacia stenophylla shoestring acacia C, F Acalypha wilkesiana C, F copper leaf C, F Acer ginnala amur maple C, F Acer palmatum coral bark Japanese maple C, F dwarf Japanese maple C, F Agapanthus africanus queen anne lily of the nile F Agave americana century plant C. F Anisodontea hypomandarum cape mallow C, F Aptenia cordifolia red apple aptenia C, F Ardisia japonica chirimen marlberry C, F Astible arendsii false spiraea Astilbe chinensis astilbe/false spirea C, F C, F Athyrium nipponimcum Japanese painted fern F Baccharis pilularis coyotebush C, F Berberis gladwynensii william penn barberry Berberis mentorensis mentor barberry C, F aurea-golden Japanese barberry F Berberis thunbergii C. F crimson pygmy barberry C, F rose glow barberry F atropurea-redleaf Japanese barberry C.F cherry bomb barberry C, F Bougainvillea spp. barbara karst C, F California gold pink pixie C, F C, F scarlet o'hara C, F temple fire C, F Texas dawn C, F Buxus x 'Green velvet' green velvet boxwood C, F Buxus microphylla japonica boxwood, Japanese F Buxus microphylla Koreana Korean boxwood C, F Buxus sempervirens boxwood, common F Callistemon citrinus bottlebrush, lemon C. F Callistemon viminalis weeping bottlebrush C, F Calluna vulgaris spring torch Scotch heather C, F Camellia japonica camellia C, F Caryopteris x clandonen dark knight bluebeard Cassia artemisioides cassia, feathery C, F F Ceanothus spp. wild lilac C, F Cephalotaxus drupacae plum yew C, F Cerastium tomentosum snow-in-summer C, F Chamaecyparis obtusa kosteri cypress C, F nana-dwarf hinoki cypress C, F torulosa cypress F baileyi-dogwood Chamaecyparis pisifera F flaviramea-dogwood C, F squarrosa minima cypress C.F Chamaecyparis pisifera spp. filifera-thread cypress Chrysalidocarpus lutescens F areca palm C, F Clethra alnifolia summersweet C, F Cleyera japonica cleyera, Japanese Coleonema pulchrum pink breath of heaven C, F

bush morning glory

		Pag
Cornus alba	sibirica-Siberian dogwood	C, F
Cornus stolonifera	baileyi-red-osier dogwood	F
	flaviramea-yellowtwig dogwood	F
Cotinus coggygria	royal purple smoke tree	C, F
Cotinus dammeri	coral beauty smoke tree	C, F
	eichholz smoke tree	C, F
Cotoneaster adpressus	praecox-early cotoneaster	C, F
Cotoneaster apiculatus	cotoneaster, cranberry	C, F
Cotoneaster congestus	cotoneaster, Pyrenees	C, F
Cotoneaster dammeri	cotoneaster, bearberry	C, F
Cotoneaster himalayan	Himalayan cotoneaster	C, F
•		
Cotoneaster horizontalis	cotoneaster, rock	C, F
Cotoneaster opiculata	cotoneaster	C, F
Cycas revoluta	sago palm	C, F
Cytisus praecox	hollandia-warminster broom	C, F
Cytisus scoparius	lena-Scotch broom	C, F
Cytisus spp.	holandia-Scotch broom	F
Daphne odora	fragrant daphne	C, F
Deutzia crenata	nakiana-dwarf deutzia	C, F
Deutzia gracilis	slender gracilis	
Dodonea viscosa	hopseed bush	C, F F
Elaeagnus pungens	fruitland silver berry	C, F
Erica cinerea	purple bell heather	C, F
Erica vagans	cornish heather	C, F
	Mediterranean pink heather	C, F
Erica x darleyensa		
Eugenia myrtifolia	dwarf brush cherry	C, F
Euonymus x 'Aureo variegatus'	gold spot euonymus	C, F
Euonymus x 'Chollipo"	chollipo eunoymus	C, F
Euonymus fortunei	canadale gold euonymus	C, F
	emerald'n gold euonymus	F
	sunspot euonymus	C, F
Euonymus japonica	silver king euonymus	F
	variegated evergreen euonymus	C, F
Euonymus kiatschovica	spreading euonymus	C, F
Euonymus vegetus	bigleaf wintercreeper	C, F
Euryops pectinatus	dwarf euryops	C, F
Fatshedera japonica		C, F
Fatsia japonica	Japanese aralia	C, F
Felicia ameloides	blue marguerite	C, F
Tellela afficiolaes	blue marguente	0, 1
Forsythia intermedia	forsythia, border	C, F
•		
Forsythia x 'Spring glory'	spring glory forsythia	C, F
Gardenia jasminoides	august beauty gardenia	C, F
	gardenia	C, F
	radican gardenia	C, F
Gaultheria shallon	salal/lemon leaf	C, F
Gelsemium sempervirens	Carolina jessamine	C, F
Genista pilosa	woadwaxen	C, F
Hibiscus rosa-sinensis	ross estey-hibiscus	C, F
Hibiscus syriacus	rose of sharon, red bird	C, F
·	rose of sharon, red heart	F
	rose of sharon, woodbridge	C, F
	rose of sharon, aphrodite	0, 1
	•	
	rose of sharon, helene	
llex aquifolium	Balkans holly	F
	gold coast holly	F
llex aquipernyi	san jose holly	C, F
llex attenuata	savannah holly	C, F
Ilex cornuta	burford holly	C, F
	dwarf burford holly	C, F
	needle point holly	C, F
llex crenata	compacta-dwarf Japanese holly	C, F
non oronata	on paola attait ouparioso fions	J, .

llex crenata	convexa holly	C, F
	dwarf Chinese holly	C, F C, F
	green luster holly helleri-heller's Japanese holly	С, F С, F
	hetzii's Japanese holly	C, F
	stokesii Japanese holly	C, F
llex glabra	compacta-compact inkberry holly	C, F
· ·	nordica-inkberry holly	C, F
llex meserveae	blue boy holly	C, F
	blue girl holly	C, F
	China boy holly	
	China girl holly	_
llex vomitoria	ebony magic holly	F
nex vornitoria	nana-dwarf yaupon holly	C, F
	pendula-weeping yaupon holly yaupon holly	C, F C, F
Illicium annisatum	mystery gardenia	C, F
molarii arriibatarri	mystery garderna	٥, ١
Itea ilicifolia	henry garnet holly leaf sweetspire	C, F
Ixora collinea	ixora	C, F
	foemina-hicks juniper	C, F
	savin juniper	C, F
	tamariscifolia-tam juniper	C, F
Juniperus chinensis	hollywood juniper	C, F
	media-old gold juniper	C, F
	pfitzer juniper	C, F
	pfitzerana glauca-blue juniper pfitzerana-pfitzer juniper	C, F C, F
	sea green juniper	F, F
	torulosa-hollywood juniper	C, F
Juniperus conferta	emerald sea shore juniper	C, F
	shore juniper	C, F
Juniperus horizontalis	andorra juniper	C, F
	bar harbor juniper	C, F
	blue chip juniper	C, F
	blue rug juniper	C, F
	creeping juniper	C, F
	dwarf andorra juniper	C, F
	huntington blue juniper plumosa-andorra juniper	C, F C, F
	wiltonii-blue carpet juniper	C, F
Juniperus procumbens	nana-dwarf Japaneses garden juniper	C, F
Juniperus prostrata	prostrata juniper	Ć, F
Juniperus sabina	broadmoor juniper	C, F
	foemina-hicks juniper	C, F
	savin juniper	C, F
	tamariscifolia-tam juniper	C, F
Juniperus scopulorum	emerald green juniper	F
Juniperus squamata	blue juniper	C, F
	blue star juniper parsonii juniper	C, F C, F
Kalmia latifolia	laurel, mountain	C, F
Lagerstroemia indica	crepe myrtle	C, F
Lantana spp.	lantana	C, F
Lavandula angustifolia	English lavander	C, F
Lavandula latifolia	English spike lavander	C, F
Lavandula officianalis	English lavander	C, F
Leptospermum scoparium	New Zealand tea tree	C, F
Leucothoe axillaris	leucothoe, coast	C, F
Leucothoe fontanesiana	leucothoe, drooping	C, F
Ligustrum japonicum	privet, Japanese wax ligustrum	C, F C, F
	yellow tip ligustrum	C, F
	Jonow up ngastram	٠, ١

			Pag
Ligustrum lucidum	privet, glossy	C, F	Ü
Ligustrum ovalifolium	California privet	F	
Ligustrum texanum	howardi privet	C, F	
	wax leaf privet	C, F F	
Ligustrum vicaryi	privet, golden	F	
Liquatrum vulgara	vicary golden privet lodense privet	r C E	
Ligustrum vulgare Livistona chinensis	Chinese fountain palm	C, F F	
Lonicera fragrantissima	winter honeysuckle	С, F	
Lonicera periclymenum	flowering woodbine	C, F	
Zomoora ponorymonam	serotina woodbine	C, F	
Lonicera sempervirens	trumpet honeysuckle	C, F	
Loropetalum chinense	fringe flower	C, F	
Mahonia aquifolium compacta	dwarf Oregon grape	C, F C, F	
Mahonia bealei	leather leaf mahonia	C, F	
Mahonia repens	creeping mahonia	C, F	
Myrica cerifera	wax myrtle	C, F	
Nandina domestica	compacta-dwarf heavenly bamboo	C, F	
	harbour dwarf-heavenly bamboo	C, F	
	heavenly bamboo (nandina)	C, F	
	nana compacta-heavenly bamboo	C, F	
	nana purpurea-heavenly bamboo	C, F	
	woods dwarf-heavenly bamboo	C, F	
Nerium oleander	hardy red oleander oleander	C, F	
	ruby lace oleander	C, F C, F	
Oamanthua fartunai	fortunes osmanthus	C, F	
Osmanthus fortunei Pachysandra terminalis	Japanese spurge	C, F	
Phoenix roeloelenii	pigmy date palm	C, F	
Photinia fraseri	fraser's photinia	C, F	
Pieris japonica	lily-of-the-valley	C. F	
	mountain fire lily-of-the-valley	C, F C, F	
	snowdrift lily-of-the-valley	C, F	
	temple bells lily-of-the-valley	C, F	
	valley rose lily-of-the-valley	C, F	
	valley valentine lily-of-the-valley	C, F C, F	
Pieris japonica x forestii	forest flame lily-of-the-valley	C, F	
Pinus mugo	mugo-mugho pine	C, F	
Pittosporum tobira	green pittosporum	C, F	
	wheeler's dwarf	C, F	
	pittosporum		
Plumbago ariculata	blue cape plumbago	F	
Plumbago capensis	plumbago	C, F	
Podocarpus macrophyllus	yewpine	C, F	
Polygala dalmaisiana	sweet pea shrub	C, F	
Polystichum polyblepharum	tassel fern	C, F F	
Potentilla fragiformis	cinquefoil		
Potentilla fruticosa	cinquefoil	C, F	
	gold drop pontentilla	F	
	goldfinger potentilla	C, F	
	red ace potentilla	C, F C, F	
	sunset potentilla tangerine potentilla	C, F C, F	
Potentilla verna	spring cinquefoil	C, F	
Prunus gladulosa	dwarf pink flowering almond	C, F	
Pyracantha fortuneana	lolendei monrovia pyracantha		
. j. asama a fortanouna	monon pyracantha	C, F F	
	red elf hybrid pyrcantha	F	
	rutgers hybrid pyracantha	C, F	
	santa cruz pyracantha		
	victory pyracantha	C, F F	
Rhaphiolepis indica	charisma-monruce rhaphiolepis	C, F	
	enchantress-moness rhaphiolepis	F	

			Г
	rhaphiolepsis (India hawthorn)	C, F	
	springtime-monme rhaphiolepis	F	
Rhaphiolepis ovata	roundleaf rhaphiolepis	C, F	
Rhododendron calendulaceum	cannon's double azalea	C, F	
Turededorial err edicitadia ee arri	flame azalea	F.	
	golden flare azalea	C, F	
	klondike azalea		
Dha da		C, F F	
Rhododendron campylocarpum	butterfly rhododendron		
Rhododendron carolinianum x daurium	PJM rhododendron	C, F	
Rhododendron catawbiense	catawba album rhododendron	C, F	
	catawba rhododendron	C, F	
	lord roberts rhododendron	C, F	
	rocket rhododendron	C, F	
Rhododendron caucasium x ponticum	cunningham white rhododendron	C, F	
Rhododendron exbury	cannon's double azalea	C, F	
Turous de Traiser expany	golden flare azalea	C, F	
	klondike azalea	C, F	
Rhododendron forrestii repens		C, F	
	gomer waterer rhododendron	С, _Г	
Rhododendron forrestii x griersonianum		C, F	
Rhododendron griffithianum	jean marie rhododendron	C, F	
Rhododendron hybrid spp.	America rhododendron	C, F	
	English roseum rhododendron	F	
	nova zembla rhododendron	C, F	
	scintillation rhododendron	C, F	
Rhododendron impeditum	rhododendron	C, F	
Rhododendron indica	formosa azalea	C, F	
Rhododendron indica	waucabusa azalea	C, F	
Rhododendron kaempferi	blue danube azalea	C, F	
Rhododendron kerume	coral bells azalea	C, F	
Rhododendron kerdine			
	hino crimson azalea	C, F	
	hino pink azalea	C, F	
	mildred azalea	C, F	
	snow azalea	C, F	
Rhododendron maximum	rhodie max (rosebay)	C, F	
Rhododendron mucronulatum	rhododendron	F	
Rhododendron obtusum	hino-crimsom azalea	C, F	
Rhododendron ponticum	chioniodes rhododendron	C, F	
Rhododendron ponticum	daphinoides rhododendron	C, F	
Rhododendron x 'purple gem'	purple gem rhododendron	C, F	
Rhododendron racemosum	dwarf scarlet wonder rhododendron	C, F	
	tribly rhododendron	C, F	
	unique rhododendron	C, F	
	vulcan rhododendron	C, F	
Rhododendron sassthigiatim x carolinianum	ramapo rhododendron	C, F	
Rhododendron satuski	gumpo pink azalea	C, F	
Taroadacriaron databa	higasa azalea	F	
	-	C, F	
Dhadadanduan ann bubuida	reijn azalea		
Rhododendron spp. hybrids	carror azalea	C, F	
	fashion azalea	C, F	
	gerard christina azalea	F	
	girard roberta azalea	C, F	
	golden flare exbury azalea	F	
	helmut vogel azalea	F	
	hershey red azalea	F	
	hot shot azalea	C, F	
	hume azalea	F	
	inga azalea	F	
	irene koster azalea	C, F	
	president clay azalea	C, F	
	tradition azalea	C, F	
Rhus lancea	sumac, African	C, F	
	Carriac, Furiouri	٥, ١	

Rosa rugosa	ramanas rose	C, F
Rosmarinus officinalis	rosemary	F
Senecio cineraria	dusty-miller/silver ragweed	C, F
Skimmia japonica	Japanese skimmia	C, F
Skimmia revesiana	reeve's skimmia	C, F
Solanum rantonetii	Paraguay nightshade	C, F
Spiraea bumalda	anthony waterer spiraea	C, F
Spiraea x cinerea 'Grefsheim'	first snow spiraea	,
Spiraea japonica	dolchia spiraea	C, F
	Japanese alpine spiraea	C, F
	shirobana spiraea	C, F
Spiraea vanhouttei	bridal wreath	C, F
Syringa rothomagensis	Chinese lilac	C, F
Syringa vulgaris	lilac, common	F
Taxus cuspidata	yew, Japanese	F
Tecomaria capensis	cape honeysuckle	C, F
Ternstroemia gymnanthera	ternstroemia, Japanese	C, F
Thuja occidentalis	emerald arborvitae	C, F
•	globosa-globe arborvitae	C, F
	little giant-dwarf arborvitae	C, F
	nigra-dark American arborvitae	C, F
	pyramidalis arborvitae	C, F
	rheingold arborvitae	C, F
	techny arborvitae	F
Thuja occidentalis	woodwardii arborvitae	C, F
Thuja orientalis	aureus nana-dwarf golden arborvitae	C, F
	minima glauca-dwarf arborvitae	C, F
Veitchia merrilli	Christmas palm	F
Viburnum bodnantense	pink dawn viburnum	C, F
Viburnum carlesii	Koreanspice viburnum	C, F
Viburnum davidii	david viburnum	C, F
Viburnum japonicum	viburnum	F
Viburnum judd (v. X juddii)	viburnum	C, F
Viburnum lantana	wayfaring tree	F
Viburnum opulus sterile	common snowball viburnum	F
Viburnum plicatum tomentosum	doublefile viburnum	C, F
Viburnum setigerum	tea viburnum	F
Viburnum tinus compactum	spring bouquet viburnum	F
Viburnum trilobum	cranberry bush	C, F
Viburnum trilobum compactum	dwarf cranberry bush	C, F
Viburnum x pragense	viburnum	C, F
Weigela florida	bristol ruby weigela	C, F
	java red weigela	C, F
Vida anna a anna atrina	minuet weigela	C, F
Xylosma congestum	xylosma	F
Yucca filamentosa	yucca	C, F

Groundcovers/Perennials

Recommended Treatment Method: C = Container Grown F = Field Grown

Scientific Name	Common Name	
Achillea millefolium	common yarrow	C, F
Agapanthus africanus	lily of the nile	C, F
Agapanthus "Peter Pan"		C, F
Alstroemeria aurea	Peruvian lily	C, F
Ammophila breviligulata	beechgrass	C, F
Antirrhinum majus	snapdragon	C, F
Arctotheca calendula	cape weed	F
Argyranthemum frutescens	Paris daisy	C, F
Artemisia schmidtiana	angels' hair	C, F
Asparagus retrofractus	fern	C, F

Asteriscus maritimus	gold coin daisy	C, F
Astilbe Deutschland	deutschland astilbe	C, F
Asparagus retrofractus	dodioonana dodibo	C, F
Asparagus variegata	tree fern	C, F
Aster novae-angliae	New England aster	C, F
	New York aster	C, F
Aster novi-belgii		
Begonia cordifolia	heartleaf begonia	C, F
Begonia semperflorens	white ambassador begonia	C, F
Bidens ferulifolia	peter's gold bidens	C, F
Brachycome x 'New amethyst'	swan river daisy new amethyst	C, F
Callistepeus chinensis	China aster	C, F
Carex spp.	sedge	C, F
Carpobrotus edulis	ice plant, largeleaf	F
Catharanthus roseus	Madagascar periwinkle	C, F
Cerastium tomentosum	snow in the summer	C, F
Ceratostigma plumbaginoides	dwarf plumbago	C, F
Chrysanthemum morifolium	florist's chrysanthemum	C, F
Chrysanthemum sp.	chrysanthemum species	C, F
Clematis integrifolia caerulea	blue bell clematis	C, F
Clivia miniata	kafir lily	C, F
Coreopsis verticillata	coreopsis, threadleaf	C, F
Cortaderia selloana	pampas grass	C, F
Cuphea hyssopifolia	false or Mexican heather	C, F
	dwarf umbrella grass	C, F
Cyperus albostriatus	· ·	C, F
Dahlia x 'Royal dahlietta pink'	dwarf dahlia wendy pink	F, F
Delosperma alba	white iceplant	
Descampsia caespitosa	descampsia	C, F
Dianthus gratianopolitanus	crimson treasure cheddar pink	C, F
Dietes vegeta	fortnight lily	C, F
Drosanthemum floribundum	trailing rosea iceplant	F
Drosantheumum hispidum	iceplant	C, F
Ensete ventricosum	red abyssinian banana	C, F
Equisetum scirpoides	dwarf horsetail	C, F
Erianthus ravennae	hardy pampasgrass	C, F
Erysimum "Bowles mauve"	wallflower	C, F
Euryops pectinatus	dwarf euryops	C, F
Eustoma grandiflorum	pink lisianthus	C, F
Festuca ovina glauca	blue fescue	C, F
Fuchsia x 'Santa Claus'	santa claus fuchsia	C, F
Gaillardia aristata	blanket flower	C, F
Gaillardia grandiflora	goblin blanket flower	C, F
Gaura lindheimeri	gaura	C, F
Gazania rigens leucolaena	gazania, trailing	C, F
Gazania spp.	gazania	C, F
Geranium incanum	cranesbill	C, F
Geranium subcaulescens	blackeyed magenta cranesbill	C, F
Hakonechloa macroaureola	golden hakonechloa	C, F
Hedera canariensis	ivy, Algerian	F
Hedera helix	ivy, English	C, F
Helichrysum petiolatum	white licorice plant	C, F
Hemerocallis spp.	daylily	C, F
Hesperaloe parviflora	red yucca	C, F
Heuchera americana	palace purple	C, F
Heuchera micrantha	coral bells	C, F
Hippeastrum hybrid	amaryllis	C, F
Hosta 'Francee'	francee plantain lily	C, F
Hosta lancifoila	albo-marginata hosta	C, F
Hosta 'Patriot'	patriot plantain lily	C, F
Hymenoxys acaulis	angelita daisy	C, F
Hypericum spp.	St. Johnswort	C, F
Impatiens wallerana	busy lizzie	C, F
Iris pumila	yellow dwarf bearded iris	Ć, F
Iris siberica	blue siberian iris	C, F
Jasminum nitidum	angelwing jasmine	C, F

Lampranthus spectabilis Leptospermum scoparium Liatris spicata Limonium perezii	trailing iceplant broom teatree/manuka gay feather statice	F C, F C, F C, F
Liriope gigantea Liriope muscari	white lily turf lilac beauty lily turf	C, F C, F
	majestic lily turf monroe white lily turf	C, F C, F
	silvery sunproof lily turf variegated liriope lily turf	C, F C, F
	big blue lily turf	C, F
Liriope spicata Lobelia erinus	green/creeping lily turf lobelia	C, F C, F
Lobularia maritima	sweet alyssum	C, F
Lonicera japonica	honeysuckle, Japanese	F
Lysimachia punctata	dotted loosestrife	C, F
Mathiola incana	stock	C, F
Miscanthus sinensis	eulalia grass	C, F
Monarda didyma	bee balm	C, F
Moraea iridiodes Oenothera speciosa	African iris siskiyou evening primrose	C, F C, F
Ophiopogon japonicus	dwarf mondo grass	C, F
opinopogen japonioae	mondo grass	C, F
Osteospermum fruticosum	freeway daisy	C, F
Pachysandra terminalis	Japanese spurge	C, F
Parthenocissus quinguefolia	Virginia creeper	C, F
Pelargonium x hortorum	zonal geranium	C, F
Pelargonium peltatum	ivy geranium	C, F
Pennisetum alopecuroides	fountain grass	C, F
Pennisetum setaceum	chrimson fountaingrass	C, F
Pentas lanceolata	star cluster	C, F
Penstemon x 'Apple blossom' Penstemon gentianoides	apple blossom penstemon hartwig penstemon	C, F C, F
Perovskia atriplicifolia	Russian sage	C, F
Petunia-hybrids	garden petunias	C, F
Phalaris arundinacea picta	ribbon grass	C, F
Ratibida columnifera	Mexican hat	C, F
Rudbeckia fulgida	blackeyed susan	C, F
Rudbeckia hirta	blackeyed susan	C, F
Ruellia brittoniana	dwarf katie ruellia	C, F
Salvia grahamii	graham's sage	C, F
Salvia leucantha	Mexican bush sage	C, F
Sedum x 'Autumn joy'	autumn joy stonecrop	C, F
Sedum x 'Vera jameson' Targetes patula 'Little hero'	vera jameson stonecrop little hero marigold	C, F C, F
Trachelospermum asiaticum	asian jasmine	C, F
Tulbaghia violacea	society garlic	C, F
Verbena peruviana	st. paul verbena	C, F
Vinca major	periwinkle, bigleaf	Ć, F
Vinca minor	periwinkle, dwarf	F
Vinca spp.	periwinkle	F
Zinnia elegans	dwarf zinnia	C, F

Non-Bearing Fruit and Nut	Doggmanded		
Troop	Recommended		
Trees Non-bearing Vineyards ¹	Treatment Method:		
	C = Container Grown		
	E - Field Grown		

Common Name

almond	F
apple	F
apricot	F
avocado	F
blackberry	F
blueberry	F
boysenberry	F
cherry, sour	F
cherry, sweet	F
currant	F
dewberry	F
elderberry	F
fig	F
filbert	F
gooseberry	F
grape, American	F
grape, European	F
grapefruit	F
kiwi	F
lemon	F
loganberry	F
macadamia nut	F
nectarine	F
olive	F
orange	F
peach	F
pear	F
pecan	F
pistachio	F
plum	F
pomegranate	F
prune	F
raspberry	F
walnut, black	F
walnut, English	F

¹Non-bearing fruit and nut trees and non-bearing vineyards are defined as plants which will not bear fruit for at least one year after treatment.

Ornamental Bulbs

Do not use this product in bulb production fields. For use in landscape settings only.

This product may be applied for control of susceptible annual weeds in ornamental bulbs, e.g., bulbous iris, daffodil (narcissus), hyacinth and tulip. Apply this product to the soil surface 2 to 4 weeks after planting, but prior to the emergence of annual weeds. This product may also be applied following bulb emergence but prior to flowering and after flowering. For fall planted bulbs, apply this product again in late winter or early spring to weed-free soil surfaces.

Special Use Precautions:

Do not apply to tulip plants that have emerged to a height greater than 3/4 inch.

Do not apply to gladiolus prior to emergence or if corms are less than one inch in diameter.

Do not apply to bulbs while they are flowering.

Shadehouse Areas

This product may be applied in open shadehouse-type structures where the natural flow of air is unimpeded. Do not apply in enclosed greenhouses or in enclosed shadehouse-type structures. Do not apply within three weeks prior to enclosing greenhouse or poly-type structures.

Non-Cropland

This product is recommended as a preemergence treatment for control of certain broadleaf weeds and annual grasses on non-cropland areas such as industrial sites, utility substations, highway guardrails, sign posts, delineators, etc. Apply this product anytime prior to germination of target weeds. Areas to be treated should be free of established weeds or existing weeds should be controlled with postemergence herbicides.

Refer to the General Information section of this label for General Use Precautions and information on Application, Application Rates, and Weeds Controlled.

Spreader Settings

These spreader settings are not intended to replace calibration. Please calibrate your spreader before applying product.

XX lbs. treats X,XXX sq. ft. at the 125 lbs. product/acre - LIGHT RATE (3.0 lbs./1,000 sq. ft. rate) XX lbs. treats X,XXX sq. ft. at the 150 lbs. product/acre - LOW RATE (3.5 lbs./1,000 sq. ft. rate) XX lbs. treats X,XXX sq. ft. at the 175 lbs. product/acre - MEDIUM RATE (4.0 lbs./1,000 sq. ft. rate) XX lbs. treats X,XXX sq. ft. at the 200 lbs. product/acre - HIGH RATE (4.5 lbs./1,000 sq. ft. rate)

				,		,
			SPREADER SETTINGS			
SPREADER	GROUND SPEED	WIDTH OF COVERAGE	LIGHT 0.25 lbs. ai/A	LOW 0.30 lbs. ai/A	MEDIUM 0.35 lbs. ai/A	HIGH 0.40 lbs. ai/A
aa	X mph	XX ft/	X	X	X	X
bb	X mph	XX ft	X	X	Х	X
cc	X mph	XX ft	X	X	X	X

Note:. This list of spreaders and settings will vary dependent on market availability of spreaders. (this note will not appear on final label)

Note: These spreader settings were established using standard equipment available from the spreader manufacturer at swath widths and speeds typically used within the industry. It is recommended that all spreader equipment be calibrated at the time of application to achieve the desired application rate.

IMPORTANT: READ BEFORE USE:

Read the entire Directions for Use and the Warranty Disclaimer and Limitation of Liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or Buyer accepts the following Warranty Disclaimer and Limitation of Liability:

WARRANTY DISCLAIMER and LIMITATION of LIABILITY:

Manufacturer warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions. To the extent consistent with applicable law manufacturer makes NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. To the extent consistent with applicable law, it is Manufacturer's intent to LIMIT ANY LIABILITY FOR SPECIAL, CONSEQUENTIAL OR INCIDENTAL ECONOMIC DAMAGES to refund of purchase price or replacement of product, at Buyer's choice. To the extent consistent with applicable law, Manufacturer DISCLAIMS ANY LIABILITY FOR COMPENSATORY OR OTHER DAMAGES ARISING OUT OF ANY USE CONTRARY TO LABEL DIRECTIONS. Use contrary to label directions is not permitted.

LEGAL RIGHTS:

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS; YOU MAY HAVE OTHER RIGHTS THAT VARY FROM STATE/JURISDICTION TO STATE/JURISDICTION.

Manufactured by: The Andersons, Inc., PO Box 119 Maumee, OH 43537

{website address} SGN XXX

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