

# Jewel®

Pre-Emergent Herbicide
Provides preemergence control of weeds
in container and field grown ornamentals.

GROUP 3 14 HERBICIDES

#### **ACTIVE INGREDIENTS:**

Oxadiazon <sup>†</sup>	2.00%
Pendimethalin <sup>††</sup>	1.25%
OTHER INGREDIENTS:	96.75%

Total 100.00%

†CAS # 19666-30-9 ††CAS # 40487-42-1

EPA Reg. No. 58185-34 EPA Est 82757-OH-1<sup>MF</sup>

EPA Est 9198-OH-1<sup>™</sup>

Superscript used is the first letter of run code on end of container.

## CAUTION

#### **FIRST AID**

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

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

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call poison control center or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by 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 call 1-888-241-6409 for emergency medical assistance.

This specimen label is for information only.

Everris makes no representations as to the accuracy of this label. It is the responsibility of the user to read and follow the label attached to the pesticide product container.

Net Weight: 50 lbs (22.68 kg)

Stock # **E95905** 

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION.** Harmful if swallowed. Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are made of any waterproof material. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

Loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks, and
- Chemical-resistant gloves

In addition, mixers and loaders must wear a chemical-resistant apron.

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, enclosed cabs, or aircraft 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 or PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish. Use with care when applying to areas adjacent to any body of water. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. 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 contaminate water when disposing of equipment washwaters.

# FOR SALE TO, USE AND STORAGE BY COMMERCIAL NURSERY, CUT FLOWER FOLIAGE AND LANDSCAPE PERSONNEL ONLY.

#### **DIRECTIONS FOR USE**

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH ITS LABELING.

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.

#### **GENERAL INFORMATION**

Jewel® Pre-emergent Herbicide is a granular herbicide with a combination of two active ingredients designed to control a broad spectrum of weeds in established landscape, field grown, and container-grown ornamental plants, including perennials. This product will not control established weeds. When applied according to the label directions, Jewel Pre-emergent Herbicide will prevent weed germination, depending on conditions. This product works well as a stand-alone product or as part of a rotational program to provide year-round weed control.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170.

This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 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
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material

#### **NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forest, nurseries or greenhouses.

Keep all people, children, and pets out of the treated areas until dusts have settled.

#### **RESISTANCE MANAGEMENT**

Unlike insects and disease causing organisms, weed populations develop resistance very slowly so the most common form of resistance encountered in nurseries and landscapes is inherent natural resistance. Though inherent, natural resistance poses the same threat as any form of resistance that develops on site. This inherent, natural resistance is often only associated with a particular herbicide compound and usually not to an entire "group" or class of herbicides. Due to the relatively small number of pre-emergent herbicide classes available, and the fact that evidence of cross-resistance within pre-emergent herbicide classes is uncommon, it is likely that rotating herbicides with different active ingredients, even if they are in the same group, will provide satisfactory weed control without causing the development of cross-resistance within the herbicide group.

Jewel® Pre-emergent Herbicide is a combination product composed of a Group 3 and a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to Jewel Pre-emergent Herbicide and to other Group 3 and 14 herbicides. Weed species with acquired resistance to Jewel Pre-emergent Herbicide may eventually dominate the weed population if Group 3 or 14 herbicides are used repeatedly in the same field or in successive years as the primary method of weed control. This may result in partial or total loss of control of those species by Jewel Pre-emergent Herbicide or other Group 3 or 14 herbicides.

To reduce the chance of herbicide resistance, consider the following:

- Base herbicide use on a comprehensive IPM program that focuses on prevention, thorough sanitation and the use of non-selective post emergent herbicides where possible, as well as other recognized IPM techniques.
- When possible on the same weed species, alternate applications of Jewel Pre-emergent Herbicide with non-Group 3 or Group 14 herbicides.
- Use herbicides from different target site of action Groups registered for the same use that have different sites of action, and are both effective at the tank mix or pre-pack rate on the weeds of concern.
- Monitor treated weed populations for loss of field efficacy.
- Contact your local extension specialist, certified crop advisors, and/or manufacturer for herbicide resistance management and/ or integrated weed management recommendations for specific crops and resistant weed biotypes.
- Contact Everris at 800-492-8255 for further information or to report suspected resistance.

#### PRECAUTIONS/LIMITATIONS

- Do not apply to wet foliage.
- Do not apply product in enclosed greenhouses or polyhouse structures, as ornamental injury may occur.
- Do not apply in windy conditions that affect distribution of the product.
- Do not till or blend Jewel Pre-emergent Herbicide into soil or potting media or apply product directly to bare roots.
- The user assumes responsibility for any crop damage or other liability from the use of this product on ornamental plant species not recommended on this label.
- Avoid contamination of water for irrigation and domestic use.
- Avoid application to cement, stone, clothing or shoes. If contact occurs, brush off particles to prevent staining. If necessary, rinse with water.
- Not for use on vegetables. Do not use on fruit trees that will bear fruit within one year of application.
- This product does not control established weeds.

### CONTAINER APPLICATION RECOMMENDATIONS

- Apply this product to dry foliage only.
- Remove established weeds from potted liners prior to transplanting into containers.
- After planting, irrigate with approximately ½ to 1 inch of water to firm potting media around root system.
- After two regular irrigation applications and after foliage has dried, broadcast product evenly over container growing area.
- Jewel® Pre-emergent Herbicide should be applied at the recommended rate with a properly calibrated spreader, which will assure accurate, even particle distribution.
- For best results, water immediately (½ to 1 inch) after application to remove granules from plant foliage and activate the herbicide.
- Do not destroy the chemical barrier by disturbing the growing media (such as by pulling weeds).
- Allow at least 2-4 months span between any two applications of Jewel Pre-Emergent Herbicide or a rotational partner such as OH2® or Rout®.
- Always read the entire product label prior to application to make sure the rotational partner is suited for the crop and use site.

### FIELD GROWN NURSERY AND LANDSCAPE APPLICATION RECOMMENDATIONS

- Apply this product to dry foliage only.
- In newly planted areas, irrigate with approximately ½ to 1 inch of water from irrigation or rainfall to firm soil around the root system of transplants.
- Prior to applying Jewel Pre-emergent Herbicide in existing landscapes or field nurseries, remove established weeds from areas to be treated with light cultivation, post-emergent herbicide, or an appropriate combination of both.
- This herbicide should be applied at the recommended rate with a properly calibrated spreader, which will assure accurate, even particle distribution.
- For best results, water immediately (½ to 1 inch) after application to remove granules from plant foliage and activate the herbicide. If no irrigation is available, try to time the application prior to expected rainfall. Failure to activate the herbicide with irrigation or rainfall may result in poor weed control.
- Do not destroy the chemical barrier by disturbing the soil (such as by pulling weeds, raking or tilling) within the effective period of control for this product.
- Allow at least 2-4 months span between any two applications of Jewel Pre-Emergent Herbicide or a rotational partner such as OH2 or Rout.
- Always read the entire product label prior to application to make sure the rotational partner is suited for the crop and use site.

The ornamental plants on the following list have been tested and shown to be safe when treated with Jewel Pre-emergent Herbicide. Only one or two varieties of each species were tested.

Other species in a genus or different varieties in the same species may respond differently. Be cautious when treating annual plants.

Jewel Pre-emergent Herbicide may be used on plant species not listed on this label. All species and varieties of ornamental plant types have not been tested. If a user wishes to make an application to a similar ornamental plant type not listed on the label, it is suggested that a trial application be performed first. THE USER ASSUMES RESPONSIBILTY FOR ANY CROP DAMAGE OR OTHER LI-ABILITY. Do not treat plants grown for food or feed. Do not use treated plants for food or feed.

A trial application should be made by applying Jewel Pre-emergent Herbicide to a small number of plants (20 or more) and grown under conditions similar to those which will be treated full scale. Wait 7 days before monitoring for injury symptoms.

#### Plants that have been found to be tolerant to Jewel® Pre-emergent Herbicide

There is limited data to support application to annuals.

#### **Trees**

Apple (Malus spp.)

Crabapple (Malus spp.)

Arborvitae (Thuja spp.)

Ash (Franxinus spp.)

Bald Cypress (Taxodium distichum)

Leyland Cypress (Cupressocyparis leylandii)

Cedar (Thuja spp.)

Cedar. Red (Juniperus virginia)

Cedar, Atlas (Cedrus atlantica)

Dogwood (Cornus spp.) Elm (Ulmus japonica)

Fir, Douglas (Psudotsuga menziesii)

Gingko (Gingko biloba)

Holly (*Ilex spp.*)

Lilac (Syringa spp.)

Magnolia (Magnolia spp.)

Maple (Acer spp.)

Oak (Quercus spp.)

Palm (several)

Pine (Pinus spp.)

Poplar (Populus spp.)

Redwood, Dawn (Metaseguoia glyptostoboides)

#### Shrubs

Bamboo (Bambusa spp.)

Barberry (Berberis spp.)

Boxwood (Buxus spp.)

Butterfly Bush (Buddleia davidii)

Camellia (Camellia spp.)

Deutzia (Deutzia gracilis)

Escallonia (Escallonia spp.)

Euonymus (Euonymus spp.)

Forsythia (Forsythia intermedia) Fothergilla (Fothergilla gardenii)

Gardenia (Gardenia jasminoides)

Honeysuckle (Diervilla / Lonicera spp.)

Holly (*Ilex spp.*)

Hydrangea (Hydrangea arborescens)

Juniper (Juniperus spp.)

Laurel (Prunus spp.)

Laurel (Kalmia latifolia)

Luecothoe (Luecothoe spp.)

Lilac (Syringa spp. )

Lily of the Nile (Agapanthus spp.)

Grape Holly (Mahonia aquafolium)

Mock Orange (Pittosporum tobira)

Mock Orange (Philadelphus virginialis)

Myrtle (Myrtus communis)

Nandina (Nandina domestica)

Oleander (Nerium oleander)

Osmanthus (Osmanthus spp.)

Photinia, Fraser (Photinia fraseri)

Privet (Ligustrum spp. )

Pyracantha (Pyracanths coccinea)

Rose (Rosa spp.)

Sweet Pepperbush (Clethra spp.)

Yew (Taxus spp.)

#### Perennial and Annual Ornamentals and Groundcovers

Acacia (Acacia redolens)

Ageratum (Ageratum spp.)

Ajuga (Ajuga spp.)

(Aguilegia spp.)

Artemisia (Artemisia schmidtiana)

Asters (Aster spp.)

Astilbe (Astilbe spp.)

Baby's Breath (Gypsophilia spp.)

Bee Balm (Monarda didyma)

Bergenia (Bergenia spp.)

Blanket Flower (Gaillardia spp.)

Blue Wild Indigo (Baptisia australis)

Campanula (Campanula carpaticia)

Canna Lilies (Canna spp.)

Cat Mint (Nepeta fassenii)

Coneflower (Rudbeckia spp.)

Coreopsis (Coreopsis lanceolata)

Echinacea (Echinacea purpurea)

Epimedium (Epimedium spp.)

Eupatorium (Eupatorium rogusum)

Dianthus (Dianthus deltoides)

Yellow Foxglove (Digitalis grandiflora)

Gaillardia (Gaillardia spp.)

Gazania, Trailing (Gazania leucolaena)

Gazania (Gazania spp.)

Geraniums (Pelargonium spp.)

Gladiolas (Gladiolus spp.)

Gaura (Gaura lindheimeri)

Hosta (Hosta spp.)

Heuchera (Heuchera micantha)

Ice Plant (Carpobrotus edulis)

lvy (Hedera spp.)

Jasmine (Jasminium mesnyi)

Jasmine Primrose (Trachelospermum spp.)

(Lamiastrum galaobdoion)

Leopards-Bane (Doronicum cordatum)

(Lavandula angustifolia)

Liatrius (Liatrius spicata)

Lily (Lilium orientalis)

(Miscanthus sinensis)

Pachysandra (Pachysandra terminalis)

Penstemon (Penstemon barbatus)

Peony (Paeonia spp.)

Periwinkle (Vinca spp.)

Phlox (Phlox subulata)

Potentilla (Potentilla spp.)

Rudbeckia (Rudbeckia fulgida )

Russian Sage (Perovskia atriplicifolia)

Salvia (Salvia nemorosa)

Scabiosa (Scabiosa spp.)

St. Johnswort (Hypericum spp.)

Veronica (Veronica spicata)

Wisteria (Wisteria sinensis)

Yarrow (Achillea millefolium)

#### **Ornamental Grasses**

Blue Fescue (Festuca ovina)

Calamagrostis (Calamagrostis acutiflora)

Purple Fountain (Pennisetum rubrum)

### Plants that have shown injury from Jewel® Pre-emergent Herbicide

Begonia (Begonia spp.)

Campanula (Campanula persicifolia)

Dianthus (Dianthus caryophyllus)

(Calluna spp.)

(Carex spp.)

(Catharanthus roseus)

Chrysanthemum (Chrysanthemum spp.)

Clematis (Clematis spp.)

Delphinium (Delphinium spp.)

(Echinacea spp.)

Heather (Calluna spp.)

Lupines (Lupinus spp.)

(Ligustrum vicaryi)

(Oenethera missouriensis)

(Heuchera spp.)

Geranium (Geranium sanguinea )

(Mondarda spp.)

Phlox (Phlox paniculata )

Sedum (Sedum brevifolium)

Shasta Daisy (Leucanthemum maximum)

Petunia (Petunia spp.)

Marigolds (Tagetes spp.)

Vinca (Vinca minor)

Zinnia (Zinnia spp.)

### Jewel Pre-emergent Herbicide provides preemergence control of the following broadleaf weeds and grasses:

When applied as described on the label, Jewel Pre-emergent Herbicide controls these weeds

#### **Grassy Weeds**

Annual Bluegrass (Poa annua)

Annual Sedge (Cyperus compressus)

Barnyardgrass (Echinochloa crusgalli)

Crabgrass, Large (Digitaria sanguinalis)

Crabgrass, Smooth (Digitaria ischaemum)

Fall Panicum (Panicum dichotomiflorum)

Field Sandbur (Cenchrus incertus)

Foxtail, Bristly (Setaria verticillata)

Foxtail, Green (Setaria viridis)

Foxtail, Yellow (Setaria lutescens)

Goosegrass (Eleusine indica)

Ripgut Bromegrass (Bromus catharticus)

Wild Oats (Avena fatua)

#### **Broadleaf Weeds**

Bittercress (Cardamine pensylvanica)

Bristly Oxtongue (Picris echioides)

Carpetweed (Mollugo verticillata)

Cheeseweed (Malva parviflora)

Common Chickweed (Stellaria media)

Common Groundsel (Senecio vulgaris)

Fiddleneck (Amsinckia intermedia)

Fireweed (Epilobium angustifolium)

Knotweed, Prostrate (Polygonum aviculare)

Lambsquarters (Chenipodium album)

Niruri (Phyllanthus niruri)

Oxalis (Oxalis stricta)

Purslane (Portulaca oleracea)

Pigweed (Amaranthus retroflexus)

Shepardspurse (Capsella bursa-pastoris) Sow Thistle (Sonchus oleraceus)

Speedwell (Veronica spp.)

Spiny Amaranth (Amaranthus spinosus) Spotted Catsear (Hypochaeris radicata) Spurge, Prostrate (Euphorbia maculata) Spurge, Roundleaf (Euphorbia cordifolia) Yellow Woodsorrel (Oxalis stricta)

#### **APPLICATION RATES**

Do not exceed 100 lbs per acre per application.

#### **Application Rate Table**

Per	Square Foot	100 Square Feet	1000 Square Feet	Per Acre
Metric	1 G	100 G	1 KG	45.4 KG
Pounds (Lbs)		0.23	2.3	100
Lbs of Active				2.0 lbs (Oxadiazon)
Ingredient per Acre				1.25 lbs (Pendimethalin)

#### **APPLICATION LIMITATIONS**

- Do not apply more than 4 pounds of oxadiazon per acre for a single application.
- Do not apply more than 6 pounds of oxadiazon per acre per year except in areas where there are heavy weed infestations.
- In areas of heavy weed infestations, the maximum application rate is 8 pounds oxadiazon per acre per year.

#### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a clean, dry place. Reseal opened bag by folding top down and securing.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the hazardous waste representative of the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or 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.

#### DISCLAIMER AND LIMITATION OF LIABILITY IMPORTANT NOTICE FROM EVERRIS NA INC. ("Everris").

#### PLEASE READ BEFORE USE.

To the extent consistent with applicable law, user or buyer accepts the conditions, disclaimer of warranties and limitations of liability. Read the entire directions for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once for full refund.

**CONDITIONS:** The directions for use of this product are believed to be adequate and the user or buyer must always follow the label directions carefully and exercise judgment and caution when using this product under their growing conditions. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness, unsatisfactory or substandard results or other unintended consequences may result because of such factors as weather conditions, presence or absence of other materials, or the manner of use or application, all of which are beyond the control of Everris. All such risks shall be assumed by the user or buyer.

WARRANTY: This product corresponds to all claims and descriptions set forth on the label and is reasonably fit for the purposes set forth in the directions for use on the label when used in accordance with those directions. This warranty is subject to the conditions and limitations stated herein. Everris recognizes that the rights and remedies of the user or buyer are subject to the provisions of the applicable law, but makes no other warranties or representations, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Everris is authorized to make any warranties beyond those contained herein or to modify the warranties contained therein. Subject to the user's or buyer's rights and remedies under the applicable law, Everris disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

**LIMITATIONS OF LIABILITY:** Subject to the user's or buyer's rights and remedies under the applicable law, the exclusive remedy of the user or buyer and the liability of Everris or its affiliates, for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid by the user or Buyer for the quantity of this product involved or, at Everris' election, the replacement of the product. To the extent consistent with applicable law, Everris must have prompt notice of any claim so that a timely investigation of buyer's or user's claim can be made. Buyer and all users shall promptly notify Everris of any claims, whether based on contract, negligence, strict liability, other tort or otherwise or be barred from any remedy.

**ATTENTION**: This product contains a chemical known to the State of California to cause cancer.

Manufactured for: Everris NA Inc. PO Box 3310 Dublin, OH 43016 1-800-492-8255

Jewel® is a Registered Trademark of Everris International BV, used under license.

H4811 Made in the USA