

228-372

8-28-2002

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

AUG 28 2002

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Russell F. Sawyer  
Riverdale Chemical Company  
1333 Burr Ridge Parkway, Suite 125A  
Burr Ridge, IL 60521-0866

Dear Mr. Sawyer:

Subject: State Clopyralid Restriction  
Riverdale Eclipse Selective Herbicide  
EPA Registration Number 228-372  
Your Submission Dated July 23, 2002

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable provided that you:

1. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:

- Delete "In Massachusetts," prior to the statement "Do not use grass clippings....mulch in the growing season of application".

A stamped copy of the label is enclosed for your records. The amended labeling supersedes previously accepted ones.

If you have any questions concerning this letter, please contact Mr. James Stone at 703-305-7391.

Sincerely yours,

A handwritten signature in black ink, appearing to be "J. Miller".

Joanne I. Miller  
Product Manager (23)  
Herbicide Branch  
Registration Division (7505C)

Enclosure

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RIVERDALE®

ECLIPSE™ SELECTIVE HERBICIDE

A PREMIUM THREE-WAY POST-EMERGENT SELECTIVE BROADLEAF HERBICIDE CONTAINING THE AMINES OF MCPA, CLOPYRALID AND DICHLORPROP-p. FOR USE ON GOLF COURSES, PARKS, ORNAMENTAL TURF LAWNS AND SIMILAR NON-CROP AREAS. CONTROLS DANDELIONS, CHICKWEEDS, PLANTAINS, OXALIS, SPURGE AND MANY OTHER BROADLEAF WEEDS, SOME OF WHICH ARE LISTED ON THIS LABEL.

ACTIVE INGREDIENTS:

Dimethylamine Salt of 2-Methyl-4-Chlorophenoxyacetic Acid*	47.77%
Monoethanolamine Salt of 3,6-Dichloro-2-Pyridinecarboxylic Acid**	2.53%
Dimethylamine Salt of (+)-R-2-(2,4-Dichlorophenoxy)propionic Acid***‡	9.54%
INERT INGREDIENTS:	40.16%
TOTAL	100.00%

By Isomer Specific AOAC Method, Equivalent to:

*2-Methyl-4-Chlorophenoxyacetic Acid	39.00%	3.74 lbs./gal.
**3,6-Dichloro-2-Pyridinecarboxylic Acid	1.92%	0.18 lbs./gal.
***(+)-R-2-(2,4-Dichlorophenoxy)propionic Acid	8.00%	0.76 lbs./gal.

‡CONTAINS THE SINGLE ISOMER FORM OF DICHLORPROP-p.

ECLIPSE™ - Is A Trademark of Riverdale Chemical Company

Riverdale - Is A Registered Trademark of Riverdale Chemical Company

For Use By Professional Turf Maintenance Personnel,  
Landscaping or Commercial Applicators Only.  
Not For Sale to or Use By Homeowners.

1NOT FOR SALE OR USE IN NASSAU AND SUFFOLK COUNTIES IN N.Y. STATE.  
IN WASHINGTON, THIS PRODUCT MAY NOT BE USED ON RESIDENTIAL LAWNS.

IN MASSACHUSETTS, DO NOT USE GRASS CLIPPINGS FROM TURF TREATED WITH THIS PRODUCT FOR COMPOSTING AND/OR MULCH IN THE GROWING SEASON OF APPLICATION.

KEEP OUT OF REACH OF CHILDREN

DANGER - PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

SEE INSIDE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND STATEMENT OF PRACTICAL TREATMENT

EPA REG. NO. 228-372

NET CONTENTS

GALS.

EPA EST. NO. 228-IL-1

ACCEPTED  
with COMMENTS  
In EPA Letter Dated:

AUG 28 2002

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.  
228-372

MANUFACTURED BY  
RIVERDALE CHEMICAL COMPANY  
BURR RIDGE, ILLINOIS 60527-0866

NOTE: Spanish language is optional

(Inside Booklet)

**PRECAUTIONARY STATEMENTS****HAZARDS TO HUMANS AND DOMESTIC ANIMALS****DANGER - PELIGRO**

Corrosive, causes irreversible eye damage. Harmful if swallowed or absorbed through skin. Do not get in eyes, on skin or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

**STATEMENT OF PRACTICAL TREATMENT**

**IF IN EYES:** Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

**IF ON SKIN:** Wash with plenty of soap and water. Get medical attention.

**IF SWALLOWED:** Call a doctor or get medical attention. Do not induce vomiting or give anything by mouth to an unconscious person. Drink promptly a large quantity of milk, eggwhites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

**ENVIRONMENTAL HAZARDS**

Drift or runoff may adversely affect nontarget plants. 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 or rinsate nor pour washwater on the ground; spray or drain over a large area away from wells and other water sources. Do not apply this product through any type of irrigation system. Do not contaminate water used for irrigation or domestic purposes.

Clopyralid, an active ingredient in this product, may leach through soil into groundwater under certain conditions of use. Use of this product where soils are permeable, particularly where the water table is shallow, may result in leaching to groundwater. Caution should be exercised when handling this product at mixing, loading, and disposal sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this product will reduce the probability of spills. Placement of mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. READ ENTIRE LABEL BEFORE USING THIS PRODUCT. USE STRICTLY IN ACCORDANCE WITH LABEL PRECAUTIONARY STATEMENTS AND DIRECTIONS.

Eclipse™ SELECTIVE HERBICIDE is for use on Ornamental Turf such as Lawns, Parks, Cemeterics, Golf Courses (Fairways, Aprons, Tees\* and Roughs), and similar non-crop areas. Not for use on turf being grown for sale or other commercial use as sod, or for commercial seed production or for research purposes.\*Excluding Bentgrass Tees.

**USE PRECAUTIONS**

Avoid drift of spray mist to vegetables, flowers, ornamental plants, shrubs, trees and other desirable plants. Do not pour spray solutions near desirable plants. Do not use on Carpetgrass Centipede, St. Augustine, Dichondra, nor on lawns or turf where desirable clovers are present. Avoid fine mists. Use lawn type sprayer with coarse spray as wind drift is less likely. Avoid contact with exposed feeder roots of ornamentals and trees. Maximum control of weeds will be obtained from Spring or early Fall applications when weeds are actively growing. The degree of weed control and duration of effect will vary with weed size and density, spray rate and coverage, and growing conditions before,

during, and after the time of treatment. Use the higher rate for hard-to-control weeds. Do not exceed specified dosages for any area; be particularly careful within the dripline of tree and other ornamental species. Do not apply to newly seeded grasses until well established. Avoid broadcast applications when air temperature exceeds 90°F. When using in small, spot treatment applications in temperatures over 90°F, turf injury may occur.

The suitable use of Eclipse on non-recommended turf species may be determined by treating a small area at any rate/acre which does not exceed 3 pints/acre. The treated area should be observed for any sign of turf injury for a period of 30 days of normal growing conditions to determine the phytotoxicity and efficacy to the treated area.

In New York State: Do not apply more than 12.4 pints (0.28 pounds of clopyralid acid) Riverdale Eclipse Selective Herbicide per acre per year.

For optimum results: (1) avoid applying during excessively dry or hot periods unless irrigation is used; (2) turf should not be mowed 1 to 2 days before and following application; (3) reseed no sooner than 3 to 4 weeks after application of this product. Adding oil, wetting agent, or other surfactant to the spray may be used to increase effectiveness on weeds but doing so may reduce selectivity to turf resulting in turf damage. Clean and rinse spray equipment using soap or detergent and water, and rinse thoroughly before reuse for other sprays.

#### WEEDS CONTROLLED BY ECLIPSE™ SELECTIVE HERBICIDE

Alfalfa, Amaranth, Aster, Bachelor button, Bedstraw, Beggartick, Beggarweed, Bindweed, Bitter sneezeweed, Black medic, Bladder campton, Bracken fern, Broomweed, Buckhorn, Buckwheat, Buffalobur, Burclover, Burcucumber, Burdock, Bursage, Buttercup, Canada thistle, Carpetweed, Catnip, Catsear, Chamise, Chamomile, Chickweed, Chicory, Cinquefoil, Clover, Cocklebur, Coffeeweed, Cornflower, Cornspeedwell, Croton, Daisy, Dandelion, Dock, Dog fennel, Dragonhead mint, Evening primrose, Field pennycress, Fleabane, Florida pusley, Frenchweed, Galinsoga, Geranium, Goatsbeard, Goldenrod, Goosefoot, Gromwell, Ground ivy, Groundsel, Halfshrub sundrop, Hawksbeard, Hawkweed, Healall, Heartleaf drymary, Hemp sesbania, Hempnettle, Henbit, Horsenettle, Horsetweed, Ironweed, Jerusalem artichoke, Jimsonweed, Knapweed, Knapwood, Knawel, Knotweed, Kochia, Ladysthumb, Lambsquarter, Lespedeza, Little starwort, Locoweed, Mallow, Marc's Tail, Marshelder, Matchweed, Mayweed, Milkweed, Morningglory, Mustard, Nightflowering catchfly, Nightshade, Oxalis (Stricta and corniculata), Parsley-piert, Pennywort, Peppergrass, Pepperweed, Pigweed, Plantain, Poison hemlock, Poison ivy, Poison oak, Pokeweed, Poorjoe, Prickly sida, Prickly lettuce, Puncturevine, Purslane, Ragweed, Red sorrel, Red clover, Redvine, Redstem, Rubberweed, Sheep sorrel, Shepherdspurse, sicklepod, Smartweed, Snakeweed, Sowthistle, Speedwell, Spiderwort, Spikeweed, Spiny, Spurge, Spurry, Spurweed, Starbur, Stinging nettle, Stitchwort, Stunkweed, Sumpweed, Sunflower, Tansy ragwort, Teasel, Teaweed, Texas blueweed, Thistle, Toadflax, Trumpet creeper, Velvetleaf, Veronica, Vetch, Waterhemlock, Waterhemp, Whitebrush, Wild radish, Wild onion, Wild aster, Wild carrot, Wild garlic, Wild geranium, Wood sorrel, Wormwood, Yankeeweed, Yarrow, Yellow starthistle, Yellow rocket, and many other broadleaf weeds.

#### ORNAMENTAL LAWNS AND TURF

Apply Eclipse Selective Herbicide at the rate of 2 to 3 pints in 20 to 240 gallons of water per acre (0.73 to 1.10 fl. oz. in 0.5 to 5.5 gallons of water per 1,000 square feet) to control weeds growing in turf planted to Bluegrass, Fescue, Rye, Bent (excluding golf course greens and tees), Bahia, Bermuda and Zoysia.

**Herbi Controlled Droplet Applicator:** Add 1-1/2 to 2-1/4 pints of Eclipse Selective Herbicide to the 5 pint Herbi bottle, then fill with water to make 5 pints of mixture or substitute 1/2 pint of a surfactant for water while agitating the solution.

While walking at approximately 1 pace (3 feet) per second, spray entire contents over 33,000 square feet (3/4 of an acre). Reduce application rates to stressed turf unless temporary injury can be tolerated.

Herbi™ is a trademark of North American Micron.

**Controlled Droplet Applicators - (CDA), Atomizers, and Spinning Disk Applicators:** Use Eclipse Selective Herbicide at the rate of 2 to 3 pints per acre (0.73 to 1.10 fluid ounces per 1,000 square feet) in sufficient water to assure coverage (1 to 4 gallons of water per acre is normal for this type of equipment).

**Lower Volume Equipment:** Use as little as 5 gallons of water per acre. Use only application equipment that is capable of spreading a uniform droplet, wetting each weed

surface.

**NOTE:** For all grasses (1) Avoid double coverage resulting from overlap unless temporary turf injury can be tolerated. (2) Use reduced rates if grass is stressed from heat, drought, etc.; and (3) Follow CDA equipment spray instructions.

#### COMPATIBILITY

Eclipse Selective Herbicide can be mixed with some liquid fertilizers or liquid iron materials. Because liquid fertilizers and liquid iron differ in pH, free ammonia content, density, salt concentration and percentage of water, a compatibility test (given below) is recommended prior to mixing in the application equipment. All regulations, either State or Federal, relating to the application of liquid fertilizers or liquid iron and this product must be strictly followed. The following compatibility test should always be performed prior to full-scale mixing.

1. Pour 18 ounces of water into a quart jar.
2. Add 1 ounce of either the liquid fertilizer or liquid iron to be used.
3. Add 1 ounce of Eclipse Selective Herbicide.
4. Close jar and shake well.
5. Watch the mixture for several seconds after shaking and check again after 30 minutes.
6. If the mixture does not show signs of separating, the combination may be used. If the mixture foams excessively, gels, separates or gets very thick, do not combine for field application.
7. Compatibility may be improved by the use of a compatibility agent. Some suggested compatibility agents to try are Kalo Laboratories Complex, HACO Inc.'s Unite, Farm Chemicals Inc.'s Compat, Harcros Chemicals' T-Mulz 734-2, Rigo Company's Rigo Compatibility Agent, Witco Chemical's Sponto 168D, Amoco Oil's Amoco Spray Mate, Universal Coop.'s Chem-Link and Loveland Industries, Inc.'s E-Z Mix. These agents are all used in the same manner. Follow the previously outlined test procedures and add 1/6 ounce of the compatibility agent between steps (the compatibility agent must be added to the fertilizer or iron before adding the Eclipse Selective Herbicide.)
8. If the mixture does not separate, gel, foam or get very thick, it may be used for field application. Mix only the amount to be sprayed. Do not allow to stand overnight.

**STORAGE AND DISPOSAL**

**STORAGE:** Always use original container to store pesticides in a secured warehouse or storage building. Do not store near open containers of fertilizers, seeds or other pesticides. Store at temperatures above 32°F. If allowed to freeze, remix before using. This does not alter this product. Containers should be opened in well ventilated areas. Keep container tightly sealed when not in use. Do not stack cardboard cases more than two pallets high. Do not contaminate water, food or feed by storage or disposal.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. If container is damaged or if pesticide has leaked, contain all spillage. Absorb and clean up all spilled material with granules or sand. Place in a closed labeled container for proper disposal. Improper disposal of excess pesticide, spray mixtures, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent), adding rinsate to spray tank. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**CONTAINER DISPOSAL FOR REFILLABLE CONTAINERS:** Close all openings and replace all caps. Contact Riverdale Chemical's Customer Service Department at 1-708/754-3330, to

**WARRANTY**

Riverdale warrants that this herbicide conforms to the chemical description on its label. When used in accordance with label directions under normal conditions, this herbicide is reasonably fit for its intended purposes. Since timing, method of application, weather, plant and soil conditions, mixtures with other chemicals and factors affecting the use of this product are beyond our control, no warranty is given concerning the use of this product contrary to label directions or under conditions which are abnormal or not reasonably foreseeable. The user assumes all risks of any such use, including the use of this product on turf species not recommended on this label. (RV 022800D)

**Editor's Note:**

The State Sale and Use Prohibitions of this product must be part of printed label text for any product which might possibly enter the channels of trade in the states of New York, Washington and/or Massachusetts. The label prohibitions are optional for all other states.

