

P1123 228-61 1076

Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060. Approval expires 11-30-93

(A) 	United States Environmental Protection Agency Office of Pesticide Programs (H7505C) Washington, DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number 171901
	Application for Pesticide:		

Section I

1. Company/Product Number 228-61	2. EPA Product Manager Joanne I. Miller	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Riverdale 2,4-D Granules	PM# 23	
5. Name and Address of Applicant (Include ZIP Code) RIVERDALE CHEMICAL COMPANY 425 West 194th Street Glenwood, IL 60425-1584 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section II

<input type="checkbox"/> Amendment - Explain below <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____ <input type="checkbox"/> "Me Too" Application. <input type="checkbox"/> Other - explain below.
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Explanation: Use additional page(s) if necessary. (For section I and Section II.)

To comply with PR Notice 93-3

Section III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____	
* Certification must be submitted.		If "Yes," Unit Package wgt.	No. per container	If "Yes," Package wgt.	No. per container
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) of Retail Container		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label Is Affixed To Product			<input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled <input type="checkbox"/> Other (_____)		

Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Russell F. Sawyer	Title Regulatory Affairs Manager	Telephone No. (Include Area Code) 708/754-3330
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature 	3. Title Regulatory Affairs Manager	
4. Typed Name Russell F. Sawyer	5. Date May 26, 1993	

RIVERDALE

2,4-D GRANULES

A SELECTIVE WEED KILLER

For control on broadleaf weeds and certain seedling grasses. Also for use in lakes and ponds for the control of certain aquatic weeds.

ACTIVE INGREDIENT:

Isooctyl Ester of 2,4-Dichlorophenoxyacetic Acid* 28.9%

INERT INGREDIENTS: 71.1%

TOTAL 100.0%

*Isomer Specific AOAC Method, Equivalent to 2,4-Dichlorophenoxyacetic Acid ... 19.18%

KEEP OUT OF REACH OF CHILDREN

CAUTION

U.S. PATENT OFFICE
JUN 8 1993
DATE _____

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Avoid inhalation and contact with eyes, skin and clothing. When loading or applying this product or repairing or cleaning equipment used with this product, wear chemical resistant gloves, long-sleeved shirt, long pants, socks and shoes. After using this product, remove clothing and launder separately before reuse, and promptly and thoroughly wash hands and exposed skin with soap and water.

STATEMENT OF PRACTICAL TREATMENT

In case of contact wash with soap and water; for eyes flush with water for 15 minutes and get medical attention.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. For terrestrial uses, 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.

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

Do not apply at rates higher than recommended. Excessive amounts in the soil may temporarily stop seed germination or plant growth. Do not use on light, sandy soils. If regular insecticide spreader is used to apply Riverdale's 2,4-D

3046

Granules, be sure to clean equipment thoroughly before other use. Riverdale 2,4-D Granules will injure vegetables, flowers, grapes, fruit plants, ornamentals, cotton, soybean, and other desirable plants. Make application on cornland in such a way that run off water from rain or irrigation will not come in contact with these plants. Do not contaminate irrigation ditches or water used for domestic purposes. However, treated water (treated as directed under Aquatic Use) may be used for watering turf grasses immediately after application. Do not use in or near a greenhouse. At higher temperatures, vapors may cause injury to sensitive plants growing nearby. Use of this product for water weed control may cause decaying vegetation to deplete the supply of oxygen, causing suffocation of fish. In many states, permits are required to control weeds with herbicides in public water. For additional information regarding State and/or local regulations and the possible need for a permit; it is suggested that the applicator contact one of the following: State Department, Natural Resources or Conservation; State Fish and Game Agency; Cooperative Extension Service; or some local governmental agency.

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

CROPS

When applying to crops, do not enter or allow worker entry into treated areas during the restricted-entry interval of 12 hours. This same restriction is required for sod farm application.

IN MIDWESTERN CORN BELT: For pre-emergence application to aid control of annual grasses such as large and small Foxtail (Pigeon grass), Crabgrass, Barnyardgrass; broadleaved weeds such as Smartweed, Sunflower, Wild Mustard, Cocklebur, Bindweed, Dandelion, Morningglory, Pigweed, Tarweed, Ragweed, Wild radish, Pennyworts, Plantains, Healall, Chicory, Yellow star thistle, Lambsquarters, and Watergrass.

2,4-D Granules should be applied preferably at corn planting time. It may, however, also be applied just before corn emerges through the soil. Plant corn at least 2 inches deep when using pre-emergence 2,4-D applications. This will aid in preventing injury from leaching of weed killer. With this treatment, one should not expect season-long control. It is intended to control grasses for 3-4 weeks so that the corn seedlings can get started without competition. It has very little effect on established broadleaf weeds over 6 inches tall; and none at all on grassy weeds once they have germinated.

Use 10 pounds, 2,4-D Granules per acre applying to soil from time of planting up to 2 days before corn seedlings emerge. This application is on a broadcast basis equivalent to 2 pounds of actual 2,4-D (Acid) equivalent. For band or row application approximately 14 inches wide, apply 3½ pounds 2,4-D Granules per acre on 40 inch rows.

IN CRANBERRIES: For pre-emergence application to control annual broadleaved weeds in bearing cranberry marshes, apply at a rate of 10-20 lbs. per acre (2 to 4 lbs. 2,4-D equivalent per acre). Application should be made broadcast in the spring after removal

of the winter flood from the dormant vines. Weeds controlled are Common Ragweed, Sticktight, Tearthumb, Smartweed, Northern Saint Johnswort, and common species of Annual Smartweed. Careful distribution of granules is necessary if adequate control is to be obtained. (For Wisconsin area granules may also be distributed on ice over plants prior to Spring thaw.)

TURF

When applying for residential and turf uses the maximum number of broadcast applications per treatment site is 2 per year. Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment areas until dust has settled.

ORNAMENTAL TURF: (such as lawns, golf courses, cemeteries, and parkways). To control Wild onion and broadleaved weeds such as Dandelion, Plantain, Ivy Bitterweed, and Dogfennel, apply 10½ lbs. of granules per acre in early Spring when shoots are young and actively growing, using a mechanical spreader. Repeat application in one month or later to control skipped spots.

DO NOT USE on Bentgrass, St Augustinegrass, Dichondra, Carpetgrass, or newly plugged or seeded turf.

AQUATICS

IN LAKES AND PONDS: 2,4-D Granules have been chemically formulated on special heat treated attaclay that will resist rapid decomposition in water. These granules sink quickly to the bottom, settling around roots and stems, and release the herbicide there. Selective control of certain specified water weeds listed below, is possible. Fish depend on oxygen, in the water, to maintain normal respiration. Oxygen can be depleted from the water by decaying weeds. If the target weed density is sparse, it may be possible to treat an entire water body at one time.

Best results with 2,4-D are likely to be obtained where: (1) The herbicide is applied as part of a lake vegetation management plan (LVMP); (2) The water is poorly buffered. Low calcium carbonate alkalinity (130 or below) generally favors the activity of the herbicide and less herbicide may be required to achieve a desired level of control. If regrowth occurs within a period of 6 to 8 weeks, it is permissible to use less than recommended rate for a second application. (3) There is no flow and little or no water movement. In ponds and lakes with excessive movement, it may be possible to draw down the water, just before and for a few days after treatment. (4) In the Spring and early Summer, during the time weeds start to grow. If desired, this timing can be checked by sampling the lake bottom in areas heavily infested with weeds the year before. Occasionally, a second application will be necessary if heavy regrowth occurs or weeds move in from untreated areas. If treatments are delayed until weeds form a dense mat or reach the surface, two treatments may be necessary. Make the second treatment when weeds show signs of recovery.

FOR FULL TREATMENT OF LARGE AREAS: Use a fertilizer spreader or mechanical seeder such as the Gerber or Gandy. When using boats and power equipment, the proper dose rate is achieved by adjusting (1) boat speed (2) rate of delivery from the spreader, and (3) width of swath covered by the granules.

FOR HALF TREATMENT OF LARGE AREAS: If treatments must be applied later in the season when the target weed mass is dense and repeat treatments are needed, treat one-half at a time by spreading granules in lanes, leaving buffer strips which can then be treated when vegetation in treated lanes has disintegrated. During the growing season, weeds

decompose in a 2 to 3 week period following treatment. This avoids excessive weed decomposition which would reduce oxygen levels in the water to a point harmful to fish life.

FOR SMALL AREAS - AROUND DOCKS OR ISOLATED PATCHES OF WEEDS: Use a portable spreader such as the Cyclone seeder. Estimate or measure out the area you want to treat. Weigh out the amount of material needed and spread this uniformly over the area. More uniform coverage is obtained by dividing the required amount in two and covering the area twice, applying the second half at right angles to the first.

RATE OF APPLICATION (100 pounds per acre is equivalent to 1 pound per 430 square feet) Rates of application vary with the resistance of weed species to the herbicide, density of weed mass at time of treatment, water depth, and rate of water flow through the treated area, and alkalinity (hardness). Use the higher rate for dense weeds, when water is more than 8 feet deep and where there is a large volume turnover. Generally, weeds are difficult to control in lakes where water replacement comes from bottom springs.

WEEDS	RATE PER ACRE
Arrowhead (<i>Sagittaria</i> spp)	200 lbs.
Bladderwort (<i>Utriculatia</i> spp)	100-150 lbs.
Bulrush (<i>Scirpus</i> spp.)	200 lbs.
Coontail or Hornwort (<i>Ceratophyllum demersum</i>)*	200 lbs.
Creeping Waterprimrose (<i>Jussiaea repens</i>)	200 lbs.
Pickerelweed (<i>Pontederia</i> spp.)	200 lbs.
Spatterdock, Cow Lily, Yellow Water Lily (<i>Nuphar</i> spp.)*	150 lbs.
Burreed (<i>Sparganium</i> spp.)	200 lbs.
Waterweed (<i>Elodea</i> or <i>Anacharis</i>)*	100 lbs.
Waterchestnut (<i>Trapa natans</i>)	100 lbs.
Watermilfoil (<i>Myriophyllum</i> spp.)	100-150 lbs.
Water Smartweed (<i>Polygonum</i> spp.)	200 lbs.
Water Stargrass (<i>Heteranthera dubia</i>)	150-200 lbs.
White Waterlily (<i>Nymphaea</i> spp.)	100 lbs.
Naiad (<i>najas flexilis</i>)*	200 lbs.
Pondweed (<i>Potamogeton</i> spp.)*/**	200 lbs.
Watershield (<i>Brasenia</i> spp.)	150-200 lbs.

*Repeat Treatments may be needed

**Check with state weed control service as results depend much on species and environment.

SPECIAL PRECAUTIONS: Always check with State Agricultural Experiment Station or Extension Service specialist so as to comply with existing regulations regarding the introduction of herbicides into water for aquatic weed control. Also, check on local variations of rates required. Do not allow chemical to be applied to adjacent desirable shoreline vegetation.

STORAGE AND DISPOSAL

STORAGE: Always use original container to store pesticides in a secured warehouse or storage building. Do not store near seeds, fertilizers,

insecticides or fungicides. Do not stack more than two pallets high. Do not contaminate water, food or feed by storage or disposal. It is recommended that a SARA Title III emergency response plan be created for storage facilities. Do not transport in the passenger compartment of any vehicle.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. If container is damaged or if pesticide has leaked, clean up all spilled material. Improper disposal of excess pesticide, spray mixtures or rinsate is a violation of Federal law and may contaminate groundwater. 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: 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 away from smoke.

WARRANTY AND LIMITATION OF DAMAGES

Riverdale Chemical Company warrants that this material conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use and Buyer assumes all risk of any use contrary to such directions. SELLER MAKES NO OTHER WARRANTY EXPRESSED OR IMPLIED AS TO FITNESS OR MERCHANTABILITY, AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO EXCEPT IN WRITING WITH SPECIFIC REFERENCE TO THIS WARRANTY. In no event shall Seller's liability for any breach of warranty exceed the purchase price of the material as to which a claim is made. (ERP 102393) (PR933 042194)

EPA REG. NO. 228-61

NET WEIGHT LBS.

EPA EST. NO. 228-IL-1

MANUFACTURED BY

RIVERDALE CHEMICAL COMPANY

GLENWOOD, ILLINOIS 60425-1584

