

228-235

07/31/2003

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

JUL 31 2003

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Mr. Russell F. Sawyer  
Nufarm Americas, Inc  
Riverdale-A Nufarm Company  
1333 Burr Ridge Parkway, Suite 125A  
Burr Ridge, IL 60527-0866

Dear Mr. Sawyer:

Subject: Riverdale DiBro 4 + 4 Granular Weed Killer (Update First Aid and Other Changes)  
EPA Registration No. 228-235  
Application Dated May 15, 2003

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended is acceptable provided you make the following changes before you release the product for shipment.

1. Revise your Precautionary Statements, Hazards to Humans and Domestic Animals to read: "Harmful If absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling."
2. Based on the Bromacil RED add a statement limiting the maximum rate of bromacil to 12 lb a.i./A/year.
3. Add the following to your Directions for Use of your label as required by the Bromacil RED for all granular, dust, or dry applications of non-WPS products containing bromacil.

**Entry Restrictions**

Do not enter or allow others to enter the treated area until dusts have settled.

4. As required by the Bromacil RED the following sentence must be added to all products containing bromacil: "Not to be used in any recreational areas or in or around homes."
5. Add a statement to your label prohibiting aerial application or add the statements in the attachment entitled "Spray Drift Management". These statements are required for all products that may be applied by aerial application.

Submit three (3) copies of your final printed labels bearing the above changes before you release the product for shipment. Amended labeling will supercede all previously accepted ones. A stamped copy of labeling is enclosed for your records.

A review of your CSF indicates that the listed source of diuron technical has been transferred to Griffin LLC. Check your source and submit a revised CSF listing the correct source of diuron technical.

Sincerely

*Debra K. Walters*  
James A. Tompkins  
Product Manger 25  
Herbicide Branch  
Registration Division (7505C)



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## Attachment-Spray Drift Management

Under the heading Spray Drift Management the text should read as follows:

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed  $3/4$  the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

## Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversion section of this label).

## Controlling Droplet Size

**Volume**-Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

**Pressure**-Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of nozzles-Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation-Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.

Nozzle Type-Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

Boom Length-For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application-Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

#### Swath Adjustment

When applications are made with a cross-wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

#### Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

#### Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

### Temperature Inversions

Applications should not occur during a temperature inversion, because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun set and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a connected cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

### Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

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RIVERDALE®

DiBro™ 4 + 4

Granular Weed Killer

CONTAINS DIURON & BROMACIL

FOR CONTROL OF WEEDS AND GRASSES IN NON-CROP AND INDUSTRIAL AREAS

ACTIVE INGREDIENTS:

Diuron [3-(3,4-dichlorophenyl)-1,1-dimethylurea]	4%
Bromacil (5-bromo-3- <u>sec</u> -butyl-6-methyluracil)*	4%
INERT INGREDIENTS:	<u>92%</u>
TOTAL	100%

\*U.S. Patents 3,235,357 & 3,352,862

DiBro is a Trademark of Riverdale - A Nufarm Company  
Riverdale is a Registered Trademark of Riverdale - A Nufarm Company

**ACCEPTED**  
**with COMMENTS**  
**In EPA Letter Dated:**

JUL 31 2003

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.  
228-235

KEEP OUT OF REACH OF CHILDREN

CAUTION

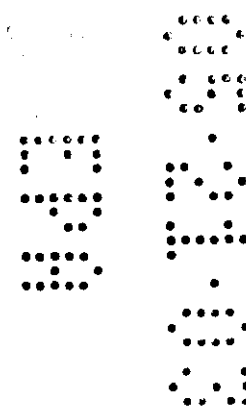
SEE FOLLOWING FOR FIRST AID  
AND ADDITIONAL PRECAUTIONARY STATEMENTS

NET WEIGHT LBS.

EPA REG. NO. 228-235

EPA EST. NO. 228-IL-1

MANUFACTURED BY NUFARM AMERICAS, INC., BURR RIDGE, ILLINOIS 60527-0866



**(Back Panel)****PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS****CAUTION**

May irritate eyes, nose, throat and skin. Avoid contact with skin, eyes, or clothing. Avoid breathing dust. Remove and wash contaminated clothing before reuse.

**FIRST AID STATEMENT**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15 to 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 ON SKIN  
OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

**ENVIRONMENTAL HAZARDS**

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.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**NON-CROP WEED CONTROL - INDUSTRIAL USE ONLY**

DiBro 4 + 4 Granular is a non-selective granular herbicide for controlling a wide range of annual and perennial weeds and grasses. It is recommended only for non-cropland areas such as rights-of-way for pipeline, utility, highway, and railroad; and industrial areas such as airports, petroleum tank farms, lumberyards, and plant sites. 100 to 200 pound applications of DiBro 4 + 4 Granular per acre usually result in a non-productive condition of the soil for a period of a year or more. The duration of non-productivity is dependent upon rainfall, soil type, and other conditions.

DiBro 4 + 4 Granular should be applied as furnished with a seed spreader, a fertilizer spreader, a shaker-type applicator, or with any equipment which will distribute the chemical uniformly over the area to be treated. For the control of annual and most perennial weeds and grasses, apply DiBro 4 + 4 Granular at the rate of 100 to 200 pounds per acre; on smaller plots, 0.25 to 0.5 pound per 100 square feet. Repeat spot treatment may be required when deep-rooted perennial weeds are present. To obtain best results, DiBro 4 + 4 should be applied to the ground where it will be absorbed by the roots. Applications made early in the season have been found to give results superior to applications at a later seasonal date. DiBro 4 + 4 Granular may, however, be applied at any time of the year. Maximum effectiveness in arid regions is obtained when application is made just prior to the rainy season. Users should consult state agricultural experimental stations or extension service weed specialists for recommendations as to use in their particular area.

**IMPORTANT:** Do not apply on or near valuable woody or herbaceous plants or on areas where their roots may extend because of possible injury to such plants. Thoroughly clean spreading equipment with a suitable chemical cleaner before using for other purposes (or do not use same spreading equipment for other purposes). Do not use on croplands or any land to be used for subsequent cropping. Keep animals off treated areas.

**STORAGE AND DISPOSAL**

**STORAGE:** Always store pesticides in a secured warehouse or storage building. Do not store near open containers of fertilizer, seed and other pesticides. Do not contaminate water, food, or feed by storage, disposal or cleaning of equipment.

**PESTICIDE DISPOSAL:** Open dumping is prohibited. Waste or rinse water that cannot be used according to label instructions must be disposed of according to applicable Federal, State or local procedures. Place in a closed, labeled container for proper disposal.

**CONTAINER DISPOSAL:** Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. The dispose of liner and drum in a sanitary landfill or by incineration if allowed by State and local authorities.

**NOTICE OF WARRANTY**

Seller warrants that this product conforms to the chemical description on the label there of and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of the seller. In no case shall the seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer. Seller makes no warranties of merchantability or fitness for a particular purpose nor any other expressed or implied warranty except as stated above.

(RV 051503)

