

Reg # 352-505

PM-25

File
197

United States Environmental Protection Agency
Washington, D.C. 20460

Office of
Prevention, Pesticides and
Toxic Substances

OCT 13 1993

Ian Wellings
E. I. DU PONT DE NEMOURS AND CO, INC.
BARLEY MILL PLAZA, WALKER'S MILL
WILMINGTON DE 19880

Subject: Label Amendment Submission of 06/11/93
in Compliance with WPS Labeling Requirements
EPA Reg No. 352-505
DUPONT KROVAR I DF HERBICIDE

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is accepted subject to the comments listed below.

Based on your certification, the Agency has accepted only those changes to your labeling which are necessary to comply with PK Notices 93-7 and 93-11, which reflect the WPS labeling requirements of 40 CFR part 156, subpart K. Any other labeling changes submitted in connection with this amendment application and not directly related to compliance with PR Notice 93-7 or 93-11 have neither been reviewed nor accepted by the Agency. If you wish to make any such changes, you must submit a separate amendment application proposing them. If your product registration is currently suspended, acceptance of this labeling amendment does not affect the suspension in any way.

A copy of your proposed labeling stamped "Accepted with comments" is attached. Make any required changes described in the attached and send three copies of final labeling as soon as it is available to:

Document Processing Desk (FIN-LABEL)

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Office of Pesticide Programs (H-7504C)
U.S. Environmental Protection Agency
401 M Street SW
Washington, DC 20460-0001

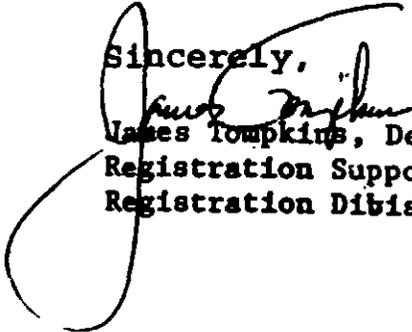
Hand or courier deliveries of final labels may be made to:

Document Processing Desk (FIN-LABEL)
Room 266A Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Please correct the typographical errors circled on the draft before printing final labeling.

In your final labeling the "Agricultural Use Requirements" text must be contained in a clearly separate box. This box may be set apart by a line, by another graphical device, by a different color background, or in any other way that clearly distinguishes it from surrounding text.

Sincerely,



James Tompkins, Deputy Chief
Registration Support Branch
Registration Division (7505W)

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E. I. DU PONT DE NEMOURS AND CO, INC.
DUPONT KROVAR I DF HERBICIDE
352-505 06/11/93
Original Submission

Add the following User Safety Recommendation to the label: "Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing."
The Monagricultural Use Requirements section is not required as no special requirements are identified.

ACCEPTED
with COMMENTS
In EPA Letter Dated

OCT 13 1993

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

352-505



KROVAR® I DF

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**HERBICIDE
DISPERSIBLE GRANULE
BY WEIGHT**

ACTIVE INGREDIENTS	80%
Bromacil [5-bromo-3-sec-butyl-6-methyluracil]	40%
Diuron [3-(3,4-dichlorophenyl)-1,1-dimethylurea]	40%
INERT INGREDIENTS	20%

TOTAL **100%**

EPA Reg. No. 352-505

U.S. Pat. 3,914,122 and 3,914,230

KEEP OUT OF REACH OF CHILDREN

CAUTION

STATEMENT OF PRACTICAL TREATMENT

If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

If in eyes: Flush with plenty of water. Get medical attention if irritation persists.

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

For medical emergencies involving this product, call toll free 1-800-441-3637.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION! Harmful if swallowed. Harmful if absorbed through skin. Causes eye irritation.

Avoid breathing dust or spray mist. Avoid contact with skin, eyes or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

Long-sleeve shirt and long pants.

Waterproof gloves.

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.

USER SAFETY RECOMMENDATIONS

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or wetlands. Do not contaminate water by cleaning of equipment or disposal of wastes.

Bromacil is a chemical which can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Bromacil has been found in ground water as a result of agricultural use. The correct use rates by geographical area, specified herein, and proper mixing-loading site precautions and procedures must be followed to minimize potential bromacil movement into groundwater.

IMPORTANT—Injury to or loss of desirable trees or other plants may result from failure to observe the following:

Do not apply (except as recommended for crop use), or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots. Do not use on lawns, walks, driveways, tennis courts or similar areas. Do not use in home fruit plantings nor in citrus orchards interplanted to other trees or desirable plants. Prevent drift of dry powder or spray to desirable plants. Do not contaminate any body of water. Keep from contact with fertilizers, insecticides, fungicides and seeds.

Thoroughly clean all traces of "Krovar" I DF from application equipment immediately after use. Flush tank, pump, hoses and "boom" with several changes of water after removing nozzle tips and screens (clean these parts separately).

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PESTICIDE HANDLING

- Loading site precautions and procedures.
- Calibrate sprayers only with clean water away from the well site.
- Make scheduled checks of spray equipment.
- Assure accurate measurement of pesticides by all operation employees.
- Mix only enough product for the job at hand.
- Avoid over-filling of spray tank.
- Do not discharge excess material as a point source.
- Dilute and agitate excess solution and apply at labeled rates.
- Avoid storage of pesticides near well sites.

GENERAL INFORMATION

Du Pont "Krovar" I DF Herbicide is a dispersible granule to be mixed in water and applied as a spray for selective control of weeds in citrus and for non-crop weed control.

"Krovar" I DF controls many annual weeds, and, at higher rates, it controls certain perennial weeds.

Moisture is necessary to move the herbicides into the root zone of weeds; best results are obtained if treatment is made to moist soil, and moisture is supplied by rainfall or sprinkler irrigation within two weeks after application. The degree and duration of control will vary with the amount applied, soil texture, rainfall, and other soil and water management practices.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner 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.

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.
- Waterproof gloves.
- Shoes plus socks.

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, forests, nurseries, or greenhouses.

Noncrop weed control is not within the scope of the Worker Protection Standard.

Du Pont "Krovar" I DF should be used only in accordance with recommendations on this label, or in separate published Du Pont recommendations available through local dealers.

Du Pont will not be responsible for losses or damages resulting from use of this product in any manner not specifically recommended by Du Pont. User assumes all risk associated with such non-recommended use.

Do not apply this product through any type of irrigation system.

CITRUS

"Krovar" I DF controls:

Annual Weeds

barnyard grass	natalgrass (red top)
chickweed	nightshade (annual)
crabgrass	pigweed
filaree	pincappleweed
fleabane	puncturevine
Florida pusley	purslane
foxtail	ragweed
goatweed	sandbur (sandspur)
groundsel	shepherdspurse
horseweed	sowthistle (annual)
johnsongrass seedling	spanishneedles
jungerice	wild lettuce
lambsquarter	wild mustard

Perennial Weeds (At maximum rates and repeat treatments)

balsamapple vine (seedlings)	guineagrass
bermudagrass	milkweed (strangler)
heartleaf	vine (seedlings)
drymary	

Apply any time of year provided overhead moisture (rainfall or sprinkler irrigation) is available to activate the herbicide, preferably just before or just after weeds have germinated.

Apply with a properly calibrated fixed-boom power sprayer as a band or broadcast treatment beneath and/or between trees. Use sufficient water (min. 40 gals. per acre) to obtain uniform coverage; avoid contact of foliage and fruit with spray or mist. Avoid overlapping, and shut off spray boom while starting, turning, slowing or stopping, or injury to trees may result. Continuous agitation in the spray tank is required to keep the material in suspension.

Dosage rates are expressed as broadcast rates. For band treatment, use proportionately less.

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Best results are obtained if "Krovar" I DF is applied to bare ground. If vegetation is present at application, tank mixes with foliar active herbicides is recommended to control existing weeds (see tank-mixes below).

If dense populations of hard to kill species are present, control of these weeds prior to application of "Krovar" I DF is recommended.

Temporary yellowing of citrus leaves may occur following treatment. Because injury to citrus trees may result do not use on soils with less than 1% organic matter (1/2% in Florida), poorly drained soils, gravelly soils, nor thinly covered or exposed subsoils; do not treat trees planted in irrigation furrows; do not treat diseased or stressed trees.

Do not use in citrus groves interplanted with other trees or desirable plants, or in home citrus plantings or in areas where roots of valuable plants or trees may extend as plant injury may result.

Do not replant treated areas to any crop within two years after last application as injury to subsequent crops may result, except that citrus trees may be planted one year after the last application.

Do not graze cattle in treated areas.

CALIFORNIA, ARIZONA

Trees established for at least Three Years: Best results occur when applied in late fall or early winter, but before winter annuals become well established. Application should be made after the first fall or early winter rains have settled the soil.

For the initial treatment, apply 4-5 lbs. "Krovar" I DF per acre on coarse soils containing 1-2% organic matter and 5-6 lbs. per acre on fine soils, or soils with organic matter of 2 1/2% or more and repeat as needed. Alternatively, apply 3-4 lbs. per acre in the fall and repeat at 2-4 lbs. per acre in the spring. Do not exceed 6 lbs. per acre per year.

Use the higher range of rates where groundsel or puncturevine are known to be a problem. The higher rates will also suppress low density stands of bermudagrass and yellow nutsedge. Repeat annually.

FLORIDA

Trees Established Less Than One Year: For control of annuals, apply 2 to 4 lbs. "Krovar" I DF per acre as needed to maintain weed control. Do not apply at less than 60-day intervals; do not apply more than 6 lbs. per acre during any 6-month period nor more than 8 lbs. per acre during the first year.

Trees Established One to Three Years: For control of annuals, apply 2 to 4 lbs. "Krovar" I DF per acre. A second application may be made when needed to maintain weed control, but do not exceed 8 lbs. per acre per year.

Trees Established Three or More Years:

East Coast/Flatwoods Areas - (low permeable soils)

- The maximum allowable is 6.4 lbs. active (bromacil) per acre per year inclusive of all bromacil formulations used within one year.
- Under the above allowable, do not apply more than 16 lbs. per acre per year of "Krovar" I DF, which contains 6.4 lbs. active (bromacil).

Do not use more than 8 lbs. "Krovar" I DF per acre in any one application.

- Multiple applications may improve control of "hard-to-kill" species.

Ridge Areas - (highly permeable soils)

- The maximum allowable is 4.2 lbs. active (bromacil) per acre per year; this is inclusive of all bromacil formulations used within one year.
- Under the above allowable, do not apply more than 10.5 lbs. per acre per year of "Krovar" I DF, which contains 4.2 lbs. active (bromacil).

Do not use more than 6 lbs. "Krovar" I DF per acre in any one application.

- Multiple applications may improve control of "hard-to-kill" species.

Tank Mixtures:

Tank mixtures of "Krovar" I DF and paraquat are recommended for weed control in citrus. For rates of individual products, refer to the respective product label. Do not apply tank mixture to foliage or green wood of citrus as injury may result.

LOUISIANA

Trees Established for at least Three Years: Make a single application of 2 to 4 lbs. per acre on coarser soils (sands, loamy sands, sandy loams) and 4 to 6 lbs. per acre on finer soils (silt loams, clay loams, or soils with organic matter of 2 1/2% or more); use the higher rates for maximum suppression of perennials. Alternatively, make two applications per year at rates of 2 lbs. per acre on coarser soils and 3 lbs. per acre on finer soils; make the second application when needed to maintain weed control.

TEXAS

Trees Established Less than One Year: Apply 2-4 lbs. "Krovar" I DF per acre as needed to maintain weed control. Do not apply at less than 60-day intervals. Do not apply more than 6 lbs. per acre during any six-month period nor more than 8 lbs. per acre during the first year.

Trees Established One or Two Years: Apply 2-4 lbs. "Krovar" I DF per acre. A second application may be made when needed to maintain weed control, but do not exceed 8 lbs. per acre.

Trees Established Three or More Years: Make one or two applications of 4-8 lbs. per acre. Make the second application when needed to maintain weed control. Do not apply more than 16 lbs. per acre per year.

Use 2-4 lbs. per acre on coarser soils (sands, loamy sands, sandy loams) and 4-6 lbs. per acre on finer soils (silt loams, clay loams, or soils with organic matter of 2 1/2% or more). Use the higher rate for maximum suppression of perennials.

Tank Mixtures:

Tank mixtures of "Krovar" I DF and paraquat are recommended for weed control in citrus. For rates of individual products, refer to the respective product label. Do not apply tank mixture to foliage or green wood of citrus, as injury may result.

AZ, CA, FL, LA, TX

SPRAY PREPARATION

Mixing in water - Fill tank 1/2 ft. with water. Start agitation system, add "Krovar" I DF and continue adding water. Add separately each additional component of any tank-mix while adding water. Continue agitation throughout.

Mixing in liquid fertilizer - A fertilizer solution may be used in the spray mixture. Small quantities should be tested for compatibility by the following procedures before full scale mixing.

1. Put 1 pint fertilizer solution in a quart jar.
2. Mix 2 teaspoonfuls "Krovar" I DF with 2 tablespoonfuls of water; mix thoroughly and add to fertilizer solution.
3. Close jar and shake well.
4. If other herbicides are used in the mixture, premix 2 teaspoonfuls of dry materials to 1 teaspoonful of liquids with 2 tablespoons of water; add to "Krovar" I DF/fertilizer solution mixture.
5. Close jar and shake well.
6. Watch mixture for several seconds; check again in 30 minutes.
7. If mixture does not separate, foam, gel or become lumpy, it may be used.

Provided the above procedure shows the mixture to be compatible, prepare the tank mixture as follows: Add the fertilizer solution to the spray tank first; with agitator running, add the required amount of "Krovar" I DF and thoroughly mix. For tank mixtures of other herbicides, follow directions above. When tank mixing with other herbicides, all applicable directions, restrictions and precautions for the additional herbicides are also to be followed.

Thoroughly reagituate before using if allowed to settle.

NON-CROP WEED CONTROL

For short-term control of annual weeds (see Citrus) on non-cropland areas such as railroads, roadsides, storage areas, utilities and plant sites, apply 4 to 6 lbs. per acre in 40 to 100 gals. of water. For extended control of annuals and partial control of perennials such as bermudagrass and nutsedge, apply 7 to 18 lbs.* per acre. For control of hard-to-kill perennials such as bermudagrass, bouncingbet, dogbane, johnsongrass, nutsedge, and saltgrass, apply 19 to 30 lbs. (except Florida) per acre. Use the higher levels of dosage rates on adsorptive soils (high in organic matter or carbon). Best results occur when application is made just before weed emergence or in early stages of weed growth.

Retreatment: Apply 4 to 6 lbs. per acre when annual weeds and grasses reappear on sites where weed growth has been controlled.

Small Areas: 1/4 cupful of "Krovar" I DF per 200 sq. ft. is approximately 15 lbs. per acre.

* **Note - Florida:** Do not use more than 16 lbs per acre per year in East Coast/Flatwoods Areas (low permeable soils), or 10.5 lbs per acre per year in ridge areas (highly permeable soils).

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"Krovar" I DF plus surfactant may be used as a tank mixture with 2,4-D amine, MSMA, and paraquat for control of undesirable vegetation in non-crop areas such as railroads, highways, pipeline and utility right-of-ways, petroleum tank farms, lumberyards, storage areas and industrial plant sites; treatment provides broader spectrum control. See container labels for use rates, additional weeds controlled and use restrictions.

STORAGE AND DISPOSAL

STORAGE: Store product in original container only, away from other pesticides, fertilizer, food, or feed.

PRODUCT DISPOSAL: Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

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 out of smoke.

NOTICE OF WARRANTY

Du Pont warrants that this product conforms to the chemical description on the label thereof 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 Du Pont. In no case shall Du Pont 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. DU PONT MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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