

Reg # 50534-17

PM-23

19.13  
File



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

APR 20 1994

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Elizabeth D. Owens  
ISK BIOTECH CORPORATION  
5966 HEISLEY ROAD  
P.O. BOX 8000  
MENTOR, OHIO 44061-8000

Subject: Label Amendment Submission of 09/14/93 in Response to PR Notice 93-7  
EPA Reg. No. 50534-17  
DACTHAL G-2.5 HERBICIDE

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

**WHAT THIS ACCEPTANCE MEANS:**

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

**WHAT YOU NEED TO DO NEXT:**

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling
- AND
- WITHIN one year from date of this acceptance.



Recycled/Recyclable  
Printed with Soy/Canola Ink on paper that  
contains at least 50% recycled fiber

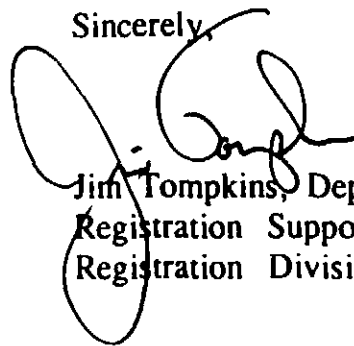
Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)  
Office of Pesticide Programs (7505C)  
U.S. Environmental Protection Agency  
401 M Street, SW  
Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

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

Sincerely,



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

Attachment

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# Dacthal® G-2.5

Net Contents: Pounds/ Kilograms  
(2.5% Dacthal Granules)

	By Wt.
Active Ingredient: DCPA (dimethyl tetrachloroterephthalate)	2.5%
Inert Ingredients:	97.5%
<b>Total:</b>	<b>100.0%</b>

## Keep Out of Reach of Children CAUTION

See side panel for additional precautionary statements.

**WARNING:** Manufactured with Carbon Tetrachloride, a substance which harms public health and environment by destroying ozone in the upper atmosphere.

**ISK Biotech Corporation**  
5966 Heisley Road  
P.O. Box 8000  
Mentor, Ohio 44061-8000

EPA Reg. No. 50534-17  
EPA Est. No. 50534-TX-01

### BEST AVAILABLE COPY

ACCEPTED  
with COMMENTS  
In EPA Letter Dated

APR 20 1994

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
50534-17

**Precautionary Statements****Hazards to Humans and Domestic Animals****CAUTION**

Causes eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

**Statement of Practical Treatment:**

**If in Eyes:** Flush with plenty of water. Call a physician if irritation persists.

**If Swallowed:** DO NOT induce vomiting. If vomiting occurs spontaneously, keep airway clear. Never give anything by mouth to an unconscious person. Seek medical attention.

**If on Skin:** Wash thoroughly with soap and water.

**Personal Protective Equipment (PPE):**

*Applicators and other handlers must wear:*

- \* Long-sleeved shirt and long pants
- \* Waterproof gloves
- \* Shoes and 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.*

*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 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**

Collect and incorporate granules spilled on the soil surface. DO NOT apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. DO NOT contaminate water by cleaning of equipment or disposal of wastes.

**Dacthal® G-2.5 Herbicide**

**A selective preemergence herbicide for control of annual grasses and certain broadleaved weeds in home flower and vegetable gardens and ornamental turf.**

**Read entire label carefully and use only as directed.**

**General Information**

DACTHAL G-2.5 is a 2.5% granular formulation for use as a preemergence application for control of crabgrass and other annual grasses and certain broadleaved weeds on mineral soils. DACTHAL G-2.5 is recommended for use on Turf; Home Flower Gardens; Nursery Stock; Strawberries; Seeded: beans (dry and snap), broccoli, brussels sprouts, cabbage, cauliflower, collards, cucumbers, garlic, kale, melons (cantaloupe, honeydew, watermelon), mustard greens, onions, potatoes (whole and cut pieces). Southern peas (blackeyed), soybeans, squash (winter and summer), turnip greens and turnips; Transplants: broccoli, brussels sprouts, cabbage, cauliflower, eggplant, garlic, peppers, onions, sweet potatoes, tomatoes and yams.

Application should be made to a uniform weed-free soil surface within two to three days maximum following cultivation to prevent subsurface germinating weeds from becoming established. Disturbing the soil surface following application will reduce effectiveness. Rates of application can be reduced on crops by banding. Lawn spreaders should be properly calibrated prior to use to deliver G-2.5 granules at prescribed rate. Settings may vary between spreaders because of condition and other factors.

DACTHAL G-2.5 can also be applied by the shaker can method. The ideal way of doing this is to measure off the area to be treated into small plots and then evenly sprinkle the prescribed quantity of DACTHAL granules over this area.

DO NOT apply this product through any type of irrigation equipment.

**Conversion Table - Acre to Smaller Areas**

**Amount of DACTHAL G-2.5 to Apply**

<b>If Rate per Acre is</b>	<b>250 sq. ft.</b>	<b>1,000 sq. ft.</b>
320 pounds per acre	1 lb. 13 oz.	7 lbs. 5 oz.
360 pounds per acre	2 lbs. 1 oz.	8 lbs. 4 oz.
420 pounds per acre	2 lbs. 6 oz.	9 lbs. 10 oz.
600 pounds per acre	3 lbs. 7 oz.	13 lbs. 12 oz.

If there is no rain within three or four days after DACTHAL G-2.5 application, sprinkler irrigation (1/2 to 1 inch of water) should be used for best results.

**Replanting:** Replanting crops other than those included on this label in DACTHAL treated soil within eight months of application may result in crop injury. If replanting is required because of an early crop failure, the planting of onions, seeded melons, potatoes, tomatoes, eggplants, or peppers at this time may result in crop injury. However, all crops on this label may be planted following harvest of a DACTHAL treated crop.

**Weed Control Spectrum**

DACTHAL is a preemergence herbicide which provides effective control of annual grasses and certain broadleaved weeds. The following weeds are grouped according to their susceptibility to DACTHAL:

**Susceptible Weeds**

Controlled at Lowest Recommended Rates for Each Soil Type

- carpetweed
- chickweed, common
- crabgrass, large

crabgrass, smooth  
 foxtail, green  
 foxtail, yellow  
 lambsquarters,  
   common  
 lovegrass  
 nettle, burning  
 pansy, field  
 purslane  
 pusley, Florida  
 witchgrass

### **Moderately Susceptible Weeds**

Highest Recommended Rates for Each Soil Type Required for Effective Control

barnyardgrass  
 bluegrass, annual  
 copperleaf, rhombic  
 copperleaf, Virginia (three-seeded  
   mercury)  
 dodder  
 deadnettle, purple  
 deadnettle, spotted  
 goosegrass  
 groundcherry  
 johnsongrass  
   (from seed)  
 knotweed, prostrate  
 nightshade, black  
 panicum, brown top  
 pigweed, redroot  
 sandbur  
 spurge, nodding  
 spurge, prostrate  
 spurge, spotted

### **Difficult to Control Weeds**

Commercially acceptable control of the following weeds may not always be obtained but weed population will be suppressed when applied at the maximum rate, thus resulting in less competition with emerging and growing crop.

buckwheat, wild  
 canarygrass, littleseed  
 dock, curly (from seed)  
 foxtail, giant  
 goosefoot, nettleleaf  
 henbit  
 knotweed, silversheath  
 ladythumb  
 panicum, fall  
 panicum, Texas  
 polypogon, rabbitfoot

rocket, London  
shepherdspurse  
sowthistle, annual  
vaseygrass  
witchweed

**Weeds Not Controlled with DACTHAL**

galinsoga  
jimsonweed  
johnsongrass  
(from rhizomes)  
mustards  
nutsedge  
ragweed, common  
smartweed  
velvetleaf

**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.*

**DO NOT APPLY IN SUFFOLK COUNTY, LONG ISLAND, NEW YORK.**

**Groundwater Advisory:** Tetrachloroterephthalic acid, a breakdown product of DACTHAL, is known to leach through soil as a result of agricultural and turf uses and has been found in groundwater which may be used for drinking water. Users are advised not to apply DACTHAL to sand and loamy sand soils where the water table (groundwater) is close to the surface and where these soils are very permeable, i.e. well drained. Consult with the state pesticide lead agency for information regarding soil permeability and aquifer vulnerability in your area.

**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. For commercial vegetable production, the REI is 24 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

**Protective Clothing Required:** Wear a long-sleeved shirt, long-legged pants, chemical resistant gloves, shoes and socks when handling (mixing, loading or applying) pesticides or when cleaning and repairing equipment used during mixing, loading or application of pesticides.

In case of contact with skin, wash thoroughly with soap and water. Always wash hands, face and arms with soap and water after using pesticides before smoking, eating, drinking or toileting. Shower after work and DO NOT reuse contaminated clothing. Clothing worn during work must be laundered separately from household articles before reuse.

**Reentry:** For commercial vegetable production. DO NOT enter treated areas for 24 hours after application unless wearing long-sleeved shirt and long pants.

**Ornamental Turf:** Apply uniformly to established turfgrass at the rate of 400 pounds per acre in the early spring before crabgrass and other annual grasses and broadleaved weed seeds germinate. Crabgrass seed germination usually coincides with the time Forsythia blossoms start to fall. One application applied in early spring before weed seed germination usually provides seasonal control.

In areas which commonly experience stands of late-germinating crabgrass and other annual weedy grasses, a second application at half the regular rate can be safely made two months after the first application. In order to control annual bluegrass (*Poa annua*) and other erratic or late-germinating grasses and weeds in northern states, a late summer or early fall application before weed seed germination of 600 pounds per acre of DACTHAL G-2.5 should supplement the early spring application. Earlier applications are required in southern United States. Consult agricultural experiment station or extension service weed specialist for date *Poa annua* seeds germinate in your area and make application at least two weeks prior to this date.

Early spring application of DACTHAL G-2.5 may be made to new turfgrass seedlings after the grasses have exhibited a uniform greening of the newly sprouted grass, preferably when 1 to 2 inches in height.

Where some spring seeding is necessary, there should be a delay of approximately 60 days after the application of most preemergence herbicides, including DACTHAL G-2.5. This delay increases the survival of desirable grasses. Fall seeding of permanent grasses can follow only a single application made either in early spring up to not less than within 60 days of seeding.

DACTHAL is not recommended for use on putting-greens. DACTHAL is not recommended on bentgrasses when mowed at putting-green heights. DO NOT apply to Dichondra.

**Flower Gardens:** Apply after establishment and conditions are favorable for good plant growth, or as a supplemental application at the rate of 360 lb. G-2.5 per acre. Apply to the soil following establishment or setting out of flower beds. Where possible, this should be done early in the spring. Delayed or secondary application, when needed, can be made at any time provided beds have been cultivated and are free of weeds. Weed control up to three months or more may be expected following proper application. See list of ornamentals.



**Nursery Stock or Ornamental Plantings:** Apply at lining out, late fall, or early spring at the rate of 360 lb. G-2.5 per acre. Applications should be made to soil recently cultivated to a uniform texture. These can be made immediately following lining-out of stock. With established plantings, application done early in the spring. Late summer applications may prove beneficial for control of fall-germinating weeds, if made following cultivation. Weed control up to three months or more may be expected following proper application. DACTHAL G-2.5 is specifically recommended for weed control on the following nursery and ornamental plantings:

Abelia  
Ageratum  
Alyssum  
Andromeda, Jap.  
Arborvitae  
Ash  
Aster  
Azalea  
Babysbreath  
Barberry  
Bellflower  
Birch  
Bleedingheart  
Bloodleaf  
Boxwood  
Bugloss  
Camellia  
Candytufts  
Chestnut  
Chrysanthemum  
Cinquefoil  
Coleus  
Columbine  
Coneflower, purple  
Coreopsis  
Coralbells  
Cosmos  
Cotoneaster  
Cottonwood  
Crabapple  
Cuphea  
Cypress  
Dahlia  
Delphinium  
Deutzia  
Dogwood  
Elaeagnus  
Elm  
Euonymus  
Evening primrose

- Feverfew
- Fir
- Forget-me-not
- Forsythia
- Four-O'Clock
- Foxglove
- Gaillardia
- Geranium
- Gladiolus
- Golddusi
- Goldentuft
- Gum
- Hawthorn
- Heath, pink
- Holly
- Hydrangea
- Honeysuckle
- Iris
- Ivy, Baltic
- Ivy, Boston
- Ivy, English
- Ivy, Wilson
- Juniper
- Lantana
- Larkspur, candle
- Lavendercotton
- Lilac
- Lily
- Locust
- Lupine
- Magnolia
- Maple
- Maguerite, golden
- Marigold
- Mockorange
- Morningglory
- Moss, rose
- Mother-of-Thyme
- Mountain Laurel
- Mourning Bride
- Nasturtium
- Oak
- Orpine
- Pachistima
- Pachysandra
- Peony
- Petunia
- Pine
- Pittosporum

Podocarpus  
Poker plant  
Poplar  
Privet  
Privet, variegated  
Redbud  
Rhododendron  
Rose  
Russian olive  
Sage, scarlet  
Snapdragon  
Spiderwort, Va.  
Spirea  
Spruce  
Stonecrop  
Strawflower  
Sundrops  
Sunflower  
Sweet pea  
Sycamore  
Tree peony  
Tulip tree  
Viburnum  
Violet, African  
Walnut  
Weigelia  
Willow  
Wormwood  
Yarrow, fernleaf  
Yew  
Zinnia

**DO NOT use on the following plants:**

Bugleweed  
Button pink  
Carnation  
Geum  
Germander  
Mesembryanthemum  
Pansy  
Phlox  
Sweet William  
Telanthera

**Note** See General Information to determine proper rate for your weed complex.  
Any Application of DACTHAL Should be Made Prior to Weed Seed Germination.

Crops	When to Apply	Rate/Acre
Broccoli, brussels sprouts, cauliflower, cabbage and all other Brassica (cole) leafy vegetables in this crop group*	At seeding or transplanting	320 to 420 lbs DACTHAL G-2.5 (See Rates of Application)

**Remarks**

Apply uniformly to the soil. DACTHAL G-2.5 can be applied directly over transplants without injury. If weeds have emerged, soil should be clean cultivated or weeded prior to application. Can be preplant incorporated.

\*Brassica leafy vegetables crop includes broccoli, Chinese broccoli, broccoli raab (rapini), Brussels sprouts, cabbage, Chinese cabbage (bok choy, napa), Chinese mustard cabbage (gai choy), cauliflower, collards, kale, kohlrabi, mustard greens and rape greens.

**Beans (dry or snap), Southern Peas (blackeyed):** Apply uniformly to the soil at time of seeding at rate of 320 to 420 lb. G-2.5 per acre.

**Seeded Cucumbers, Squash (winter or summer), Melons (cantaloupe, watermelon, honeydew):** Apply uniformly to the soil at rate of 320 to 420 lb. G-2.5 per acre when plants have 4 to 5 true leaves, are well established and growing conditions are favorable for good plant growth. Crops should be cultivated or weeded prior to DACTHAL application if weeds have emerged.

**Turnips (greens and roots):** Apply uniformly to the soil at rate of 320 to 420 lb. G-2.5 per acre at time of seeding.

**Garlic and Onions:** Apply uniformly to soil at seeding, or transplanting and on onions at layby at rate of 320 to 420 lb. G-2.5 per acre. DACTHAL can be applied directly over transplants without injury. A layby application can be made on onions up to 14 weeks after seeding or transplanting. Should weeds emerge prior to layby, the crop should be cultivated or weeded before application.

**Potatoes: (whole or cut pieces):** Apply uniformly to the soil at rate of 320 to 420 lb. G-2.5 per acre at planting, drag-off or layby. If top of beds are to be dragged off, make application after drag-off. Layby applications can be made up to 8 weeks after planting. If weeds have emerged at layby, the crop should be cultivated prior to application. The initial sprinkler irrigation should not exceed one inch. DACTHAL is not recommended for use on potatoes in California.

**Sweet Potatoes and Yams:** Apply uniformly to the soil at rate of 320 to 420 lb. G-2.5 per acre at time of transplanting or layby. DACTHAL can be applied over transplants without injury. Layby application can be made up to 6 weeks after transplanting. If weeds have emerged, the crop should be cultivated or weeded prior to making the DACTHAL application.

**Tomatoes, Eggplant, Peppers:** Apply uniformly to the soil at rate of 320 to 420 lb. G-2.5 per acre should be confined to a period 4 to 6 weeks after transplanting. Plants should be well established and growing conditions favorable for good plant growth. DACTHAL can be applied directly over the plants without injury. If weeds have emerged, the crop should be cultivated or weeded prior to making the DACTHAL application.

**Strawberries:** New plantings – Apply uniformly to soil at rate of 360 lb. per acre at time of transplanting. Established plantings – Apply in early fall and early spring at rate of 320 to 420 lb. per acre to control fall and early spring germinating weeds. DO NOT apply after first bloom through harvest. These applications can be made directly over plants without injury.

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**Special Precautions:** DO NOT feed treated foliage to livestock or graze treated areas. Applied according to directions and under conditions favorable to good plant growth, DACTHAL will not harm crops for which its use is recommended; however, conditions such as high salt concentration, seedling disease, cold weather, deep planting, excessive moisture or drought may injure or weaken crops normally tolerant to DACTHAL G-2.5, thereby increasing the possibility of herbicide damage. Under any of these conditions, one or more of the following may result; delayed crop development, reduced yields or reduced quality.

### **Storage and Disposal**

DO NOT contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

**Storage:** Store in a dry place.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of at an approved waste disposal facility. DO NOT contaminate water when disposing of equipment washwaters.

**Container Disposal:** Completely empty bag into application equipment and 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.

### **Warranty and Limitation of Damages**

Seller 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 the risk of any use contrary to such directions. SELLER MAKE NO OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO. 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.