



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

JAN 14 1994

Willard F. Cummings  
UNIROYAL CHEMICAL CO. INC.  
74 Amity Road  
Bethany, CT 06524

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Subject: Label Amendment Submission of 07/16/93 in Response to PR Notice 93-7  
EPA Reg. No. 400-454  
TURFCIDE 4F

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 SoyCanola Ink on paper that  
contains at least 50% recycled fiber

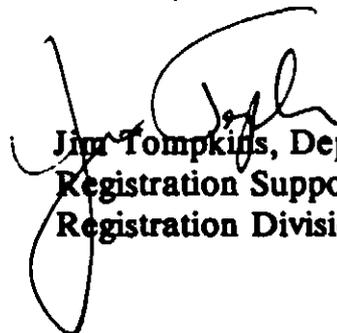
**Submit the final printed labeling via the U.S. Postal Service to:**

**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**

# TURFCIDE® 4F

## FLOWABLE TURF & ORNAMENTAL SOIL FUNGICIDE



ACCEPTED  
with COMMENTS  
In EPA Letter Dated

JAN 14 1994

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
440-454

### COMPOSITION

Active Ingredient: (% by weight)	
Pentachloronitrobenzene (PCNB) .....	40%
Inert Ingredients: .....	60%
TOTAL .....	100%

Contains 4 lbs. of Pentachloronitrobenzene per U.S. gallon.

UNIROYAL CHEMICAL COMPANY, INC., Middlebury, Connecticut 06749 006WPS  
EPA REG. NO. 400-454  
EPA EST. NO.

Net Contents:

### KEEP OUT OF REACH OF CHILDREN CAUTION

#### STATEMENT OF PRACTICAL TREATMENT

**IF IN EYES:** Flush eyes with plenty of water. Call a physician if irritation persists.

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

**IF INHALED:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

#### PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS  
AND DOMESTIC ANIMALS

#### CAUTION

Causes eye irritation. Harmful if inhaled. Avoid contact with eyes or clothing. Avoid breathing vapor or spray mist.

#### PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category E on an EPA chemical resistance category selection chart.

**Applicators and Other Handlers (other than mixers and loaders) Must Wear:** A long-sleeved shirt & long pants; chemical resistant gloves such as barrier laminate, or nitrile rubber, or neoprene rubber, or viton; shoes plus socks.

**Mixers and Loaders Must Wear:** A long-sleeved shirt & long pants; chemical resistant gloves such as barrier laminate, or nitrile rubber, or neoprene rubber, or viton; shoes plus socks. For exposures in enclosed areas: A respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G). For exposure outdoors: Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C).

Follow manufacturer's instructions for cleaning and 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 or enclosed cabs 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 by 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.

#### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic organisms. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean 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.

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

Do not plant root crops in PCNB treated fields within 12 months of broadcast or banding applications unless PCNB is registered for use on those crops.

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 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 intervals. 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.

Exception: if the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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
- chemical resistant gloves such as barrier laminate or nitrile rubber, or neoprene rubber, or viton
- shoes plus socks

**GENERAL INFORMATION**

TURFCIDE 4F is a preventative fungicide recommended for control of certain soil borne diseases of turf and ornamental crops.

Best results are achieved when used in a preventative program following recommended rates and application directions.

Carefully read, understand and follow label directions.

**LAWNS AND TURF**

TURFCIDE 4F is a fungicide for the prevention and control of certain soil borne diseases on golf courses, sod farms, home lawns and institutional areas where turf is grown.

Best results are obtained when TURFCIDE 4F is used as a preventative application before diseases appear, however, if you do not apply as a preventative treatment, TURFCIDE 4F should be applied at first sign of disease.

Areas treated with TURFCIDE 4F should be watered following application to move material down to soil level. If treated area is subjected to flooding or unusually heavy rainfall, or if disease is severe or reappears, the area should be treated again.

See use and rate recommendations for retreatment intervals. Do not graze treated areas or feed clippings to livestock.

Under certain growing conditions, a temporary discoloration of the grass may occur. This causes no harm and will disappear in a short time.

**USE AND RATE RECOMMENDATIONS FOR TURF**

DISEASE	TURF TYPE	FL./OZS. PER 1000 SQ. FT.	APPLICATION NOTES
Brown Patch ( <i>Rhizoctonia solani</i> )	Warm climate grasses such as: St. Augustine Bermuda	24	Mix specified amount in 10-15 gals. of water and apply a single application in the spring or fall or at first indication of disease. If disease is severe or reappears, area should be retreated 3 - 4 weeks later.
	Dichondra	24	Mix specified amount in 40 gals. of water and treat as above.
	Cool climate grasses such as: Bluegrass Ryegrass Fescue Bent	4½ to 6	Mix specified amount in 3-6 gals. of water and apply at first sign of disease. Repeat every 7 to 10 days during warm, damp weather. For control of existing infections, apply at higher rates as soon as symptoms appear.
Melting Out/ Leaf spot* ( <i>Drechslera</i> spp. formerly <i>Helminthosporium</i> spp.)	All	10½ to 15	Mix specified amount in 5-10 gals. of water and apply as a preventative application in the spring or fall of each year. For control of existing infections, apply at higher rates as soon as symptoms appear. If disease is severe or reappears, area should be retreated 3 to 4 weeks later.
Dollar Spot* ( <i>Sclerotinia homoeocarpa</i> )			
Gray Snow Mold ( <i>Typhula incarnata</i> )	Cool climate grasses	12	Mix specified amount in 5-10 gals. of water and apply one application prior to first snowfall.
Pink Snow Mold ( <i>Fusarium nivale</i> )			

\*DO NOT USE IN CALIFORNIA

**ORNAMENTALS**

TURFCIDE 4F can be used as a soil treatment for protection against a variety of soil borne diseases of ornamentals grown in greenhouses, shadehouses, nurseries and interiorscapes.

The mixture of TURFCIDE 4F and water should be continuously agitated to assure uniform application.

It is important that the mixture of TURFCIDE 4F and water be drenched or incorporated thoroughly into the soil for best results.

See use and rate recommendations for specific plants and diseases.

When a rate range is shown, the lower rate should be used on lighter or coarse textured soils or when disease pressure is expected to be low.

The higher rates should be used on heavy or fine textured soils in fields with a history of disease problems, or when weather conditions are expected to be unfavorable for rapid germination and growth of seedlings.

**DISEASES CONTROLLED**

Causal Agent	Common Name
<i>Botrytis cinerea</i>	Storage Rot
<i>Dothistroma pini</i>	Needle Blight
<i>Ovulinia azaleae</i>	Azalea Petal Blight
<i>Pellicularia filamentosa</i>	Root Rot / Stem Rot
<i>Pellicularia rolfsii</i>	Bulb Rot / Crown Rot
<i>Phylosticta cookeri</i>	Magnolia Leaf Spot
<i>Rhizoctonia solani</i>	Root Rot / Stem Rot
<i>Rhizoctonia spp.</i>	Root Rot / Stem Rot
<i>Sclerotinia camelliae</i>	Camellia Flower Blight
<i>Sclerotinia gladioli</i>	Dry Rot
<i>Sclerotinia sclerotiorum</i>	Stem Rot / Black Rot
<i>Sclerotium rolfsii</i>	Bulb Rot / Crown Rot
<i>Stromatinia gladioli</i>	Dry Rot

**USE AND RATE RECOMMENDATIONS FOR ORNAMENTALS**

CROP	DISEASE	PINTS OF TURFCIDE 4F	APPLICATION NOTES																										
Bedding Plants Flowering Plants Foliage Plants Woody Plants	Root / Stem Rot, Damping Off ( <i>Rhizoctonia solani</i> ) ( <i>Pellicularia filamentosa</i> )	3/8 - 1/2 (6 - 12 fl. oz.)	<p><b>SOIL DRENCH AT SEEDING OR TRANSPLANTING IN THE NURSERY OR GREENHOUSE:</b> Mix specified amount in 100 gals. of water and apply according to the following guidelines: For Bed and Bench Grown Plants:</p> <table border="1"> <thead> <tr> <th>Soil Depth (inches)</th> <th>Coverage for TURFCIDE 4F Drench Mix Fl. oz./Sq. ft.</th> <th>Sq. ft./100 gals.</th> </tr> </thead> <tbody> <tr> <td>2 or less</td> <td>16</td> <td>800</td> </tr> <tr> <td>3</td> <td>24</td> <td>530</td> </tr> <tr> <td>4 or more</td> <td>32</td> <td>400</td> </tr> </tbody> </table> <p>For Container Grown Plants:</p> <table border="1"> <thead> <tr> <th>Pot Diameter (inches)</th> <th>Minimum Drench Volume (fl. oz./pot)</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>1.5</td> </tr> <tr> <td>5</td> <td>3</td> </tr> <tr> <td>6</td> <td>4</td> </tr> <tr> <td>8</td> <td>7</td> </tr> <tr> <td>10</td> <td>13</td> </tr> <tr> <td>12</td> <td>18</td> </tr> </tbody> </table> <p>One repeat application may be made 4 to 6 weeks later, if necessary.</p>	Soil Depth (inches)	Coverage for TURFCIDE 4F Drench Mix Fl. oz./Sq. ft.	Sq. ft./100 gals.	2 or less	16	800	3	24	530	4 or more	32	400	Pot Diameter (inches)	Minimum Drench Volume (fl. oz./pot)	4	1.5	5	3	6	4	8	7	10	13	12	18
	Soil Depth (inches)	Coverage for TURFCIDE 4F Drench Mix Fl. oz./Sq. ft.	Sq. ft./100 gals.																										
2 or less	16	800																											
3	24	530																											
4 or more	32	400																											
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4	1.5																												
5	3																												
6	4																												
8	7																												
10	13																												
12	18																												
	Stem Rot ( <i>Sclerotinia sclerotiorum</i> )	5%	<b>BROADCAST INCORPORATED PRIOR TO PLANTING IN THE FIELD:</b> Apply specified amount to 1000 sq. ft. in sufficient water to assure uniform ground coverage. Thoroughly incorporate to a depth of 4 inches.																										
Azaleas	Azalea Petal Blight ( <i>Ovulinia azaleae</i> )	1 1/2	<b>GROUND SPRAY ON ESTABLISHED PLANTS:</b> Apply specified amount to 150 sq. ft. in sufficient water to assure uniform ground coverage. Apply to ground beneath the bushes and immediate surrounding area. Begin application prior to opening of buds and repeat every 3-4 weeks through bloom period.																										
Camellias	Camellia Flower Blight ( <i>Sclerotinia camelliae</i> )																												
Hyacinth Iris (bulbous) Narcissus Tulip	Root Rot / Stem Rot / Bulb Rot ( <i>Rhizoctonia solani</i> ) ( <i>Pellicularia solani</i> ) Bulb Rot / Crown Rot ( <i>Sclerotium rolfsii</i> ) ( <i>Pellicularia rolfsii</i> ) Black Rot ( <i>Sclerotinia sclerotiorum</i> )	5 - 9%	<p><b>BROADCAST INCORPORATED PRIOR TO PLANTING:</b> Apply specified amount to 1000 sq. ft. in sufficient water to insure uniform ground coverage. Thoroughly incorporate to a depth of 6 to 7 inches.</p> <p>NOTE: For bulbous iris, use 5 - 7 pints per 1000 sq.ft. and incorporate to a depth of 2 - 3 inches. Use lower rate for coarse textured (light) soils and higher rate for fine textured (heavy) soils.</p>																										
		6 1/2 - 9	<b>IN-FURROW APPLICATION AT PLANTING:</b> Apply specified amount to 1000 linear ft. of row in 5 to 10 gals. of water. Direct spray into open furrow to thoroughly cover entire furrow and bulbs. Close furrow in normal manner. Use lower rate for coarse textured (light) soils and higher rate for fine textured (heavy) soils. For Black Rot control, use higher rate.																										
		3	<b>BULB SOAK:</b> Mix specified amount in 3.2 gals. of water (7.5% concentration). Add 1% sticker to mixture and maintain good agitation. Soak bulbs for 5 minutes.																										
		3/4	<b>BAND APPLICATION PRIOR TO PLANTING:</b> Apply specified amount to 1000 linear ft. as a 12 inch band spray centered on the row at planting time. Follow with 3 additional applications at 15 day intervals.																										

CROP.	DISEASE	PINTS OF TURFCIDE 4F	APPLICATION NOTES
Gladiolus	Dry Rot ( <i>Stromatinia gladioli</i> ) ( <i>Sclerotinia gladioli</i> )	5½	<b>BROADCAST APPLICATION PRIOR TO PLANTING:</b> Apply specified amount to 1000 sq. ft. in sufficient water to insure uniform ground coverage. Thoroughly incorporate to a depth of 4 to 6 inches. Bulbs may be planted immediately after incorporation.
		8¼	<b>BAND APPLICATION PRIOR TO PLANTING:</b> Apply specified amount to 1000 linear ft. as a 12 inch band centered on the row. Thoroughly incorporate to a depth of 4 inches. Bulbs may be planted immediately after incorporation.
Lilies (Easter) (Asiatic) (Oriental)	Root Rot / Stem Rot ( <i>Rhizoctonia solani</i> ) ( <i>Pellicularia filamentosa</i> ) Bulb Rot / Crown Rot ( <i>Sclerotium rolfsii</i> ) ( <i>Pellicularia rolfsii</i> ) Stem Rot / Black Rot ( <i>Sclerotinia sclerotiorum</i> )	5 - 9¼	<b>BROADCAST INCORPORATION PRIOR TO PLANTING:</b> Apply specified amount to 1000 sq. ft. in sufficient water to assure uniform ground coverage. Thoroughly incorporate to a depth of 6 to 7 inches. Use lower rate for coarse textured (light) soils and higher rate for fine textured (heavy) soils.
		6¼ - 9	<b>IN-FURROW APPLICATION AT PLANTING:</b> Apply specified amount to 1000 linear ft. of row in 5 to 10 gals. of water. Direct spray into open furrow to thoroughly cover entire furrow and bulbs. Close furrow in normal manner. Use lower rate for coarse textured (light) soils and higher rate for fine textured (heavy) soils.
		6 - 9	<b>BULB SOAK:</b> Mix specified amount in 100 gals. of water. A sticking agent may be added. Maintain good agitation in dip tanks. Soak bulbs in mixture for 5 - 15 minutes.
Magnolia grandiflora	Magnolia Leaf Spot ( <i>Phyllostica cookeri</i> )	3	<b>FOLIAR SPRAY APPLICATION:</b> Apply specified amount in 100 gallons of water. Add a spreader-sticker at the rate of 1 pint per 100 gallons. Begin applications approximately 1 week before disease normally appears. Apply at least 4 sprays at 2 week intervals. <b>NOTE:</b> Do not use on Magnolia fuscata as injury may result.
Roses	Storage Rot ( <i>Botrytis cinerea</i> )	1½ - 3	<b>DIP APPLICATION:</b> Mix specified amount in 100 gallons of water. Maintain good agitation in dip tanks. Dip dormant roses in solution prior to storage.
		3	<b>SPRAY APPLICATION:</b> Mix specified amount in 100 gallons of water. Thoroughly spray dormant roses prior to storage.
Southern Pine Seedlings	Root / Stem Rot, Damping Off ( <i>Rhizoctonia spp.</i> ) ( <i>Pellicularia filamentosa</i> )  Needle Blight ( <i>Dothistroma pini</i> )	1¼	<b>BROADCAST APPLICATION PRIOR TO PLANTING:</b> Apply specified amount to 1000 sq. ft. in sufficient water to insure uniform ground coverage. An additional 1/2 inch of water should be applied by irrigation following treatment. Seed may be planted immediately following irrigation or within one week of this date.

#### PLANT TOLERANCE:

Neither the manufacturer nor the seller has determined whether or not TURFCIDE 4F can be used safely on ornamental plants not specified on this label. Prior to any large scale application on such plants, the user should determine the safety of TURFCIDE 4F fungicide by testing a small number of the type of plants to be treated at the recommended rates for that particular group, i.e., bedding plants, foliage, etc. and observing the treated plants over a one to two week period for symptoms of phytotoxicity, which may occur as foliage burn or stunted growth. The user assumes all risks arising out of application to unlabeled plants.

#### STORAGE AND DISPOSAL

**PROHIBITIONS:** Do not reuse empty containers. Do not contaminate water, food or feed by storage or disposal.

**STORAGE:** Keep container closed when not in use. In case of spill or leak on floor or paved surfaces, soak up with sand, earth or synthetic absorbent. Remove to chemical waste area.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, 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 nearest EPA Regional Office for guidance.

#### CONTAINER DISPOSAL:

**Plastic Containers:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**IMPORTANT NOTICE —** Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with the directions and instructions specified on the label under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product, contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

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