

400-453

12-12-2002

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

Willard F. Cummings
c/o Betsy Katzman
Crompton Manufacturing Company, Inc.
74 Amity Road
Bethany, CT 06524-3402

DEC 12 2002

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Subject: Terraclor Flowable Fungicide
EPA Reg. No. 400-453
Your Submission dated July 31, 2002

Dear Mr. Cummings:

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted provided the following change is made:

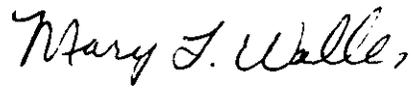
Under potatoes, add: "Do not exceed 20 lbs. of actual PCNB per acre in any one season regardless of method of application or formulation used except in California. In California, do not exceed 16 lbs. actual PCNB per acre in any one season."

For future submissions, please submit draft labels that have a larger font size. The font size used in ^{the} draft labels submitted for review is so small that xerox or faxed copies will be or will eventually be illegible. The agency must ensure that it has reproducible documents in its files.

A stamped copy of the label is enclosed for your files. You must submit one copy of the final printed label prior to releasing the product for shipment.

If you have questions about this letter, please contact Summer Gardner-Jenkins of my staff at (703) 308-9353.

Sincerely,



Mary L. Waller
Product Manager 21
Fungicide Branch
Registration Division (7505C)

Enclosure: stamped label

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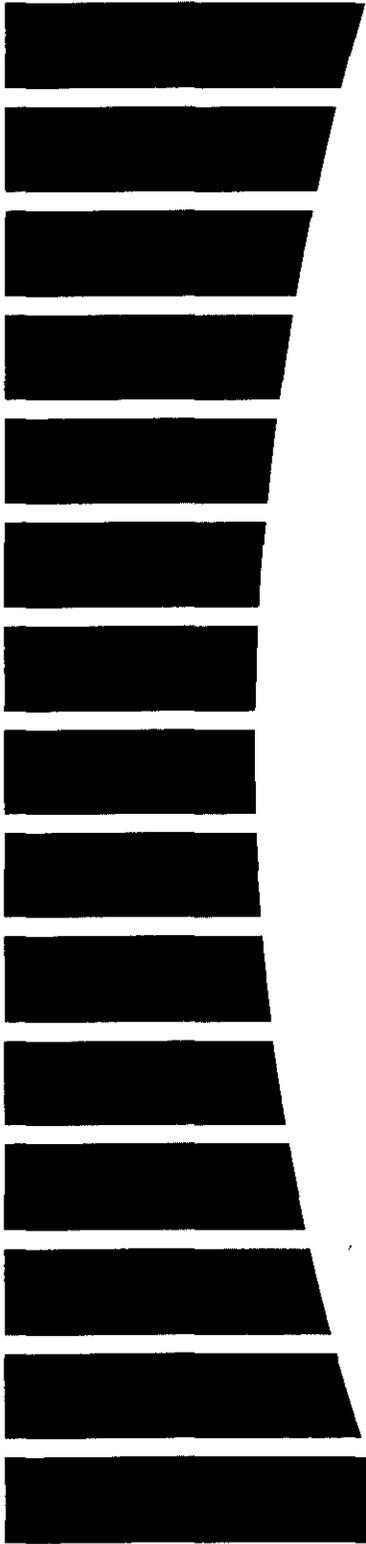
ACCEPTED
with COMMENTS
In EPA Letter Dated

DEC 12 2002

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

400-453

Terraclor® Flowable Fungicide



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

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

Net Contents:

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

FIRST AID	
IF IN EYES:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lens, 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 ON CLOTHING	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call poison control center or doctor immediately for treatment advice.
IF INHALED	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none"> • Call poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
EMERGENCY ASSISTANCE: Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
CROMPTON EMERGENCY PHONE	203-723-3670
SAFETY DATA AND INFORMATION	203-573-3303
TRANSPORTATION EMERGENCY (CHEMTREC)	800-424-9300

Precautionary Statements and Directions for Use are in the attached booklet. If booklet is missing, contact Crompton or an authorized dealer.

EPA REG. NO. 400-453
EPA EST NO.
014

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Middlebury, CT 06749
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Crompton
Uniroyal Chemical

www.cromptoncorp.com

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PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin or inhaled. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist. Remove contaminated clothing and wash clothing before reuse. Wash thoroughly with soap and water after handling.

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 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), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P or HE prefilter. For exposures outdoors: Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any N, R, P or HE filter.

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, 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 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 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.

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 AND 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 and socks.

GENERAL INFORMATION

TERRACLOR FLOWABLE is a protective fungicide recommended for control of certain soil borne diseases of vegetable and field crops. Best results are achieved when used in a preventative program following recommended rates and application directions. Carefully read, understand and follow label directions.

TANK MIXTURE COMPATIBILITY

Combinations of TERRACLOR FLOWABLE with fungicides, insecticides, plant growth regulators or fertilizers should be checked for compatibility before tank mixing. Use a jar test to mix the recommended proportions of each product in a volume of water which is proportionate to the expected field use rate. The mix is considered compatible if it remains stable or can be easily reconstituted by shaking after standing for 5 minutes.

VEGETABLES

TERRACLOR FLOWABLE should be applied as a preventative fungicide to vegetable crops. It is important when using TERRACLOR FLOWABLE as a protective fungicide that material be placed into the soil. This can be accomplished as a soil drench, mechanical incorporation or as an in-furrow application. See use and rate recommendations for specific crop use recommendations and diseases controlled by TERRACLOR FLOWABLE.

When rate range is shown the lower rate should be used on lighter soils or disease pressure is expected to be low. The higher rates should be used on heavy 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.

CROP

DISEASES CONTROLLED

BEANS (snap & dry)	Root & Stem Rot (<i>Rhizoctonia solani</i>)
PEPPERS, TOMATOES	Southern Blight (<i>Sclerotium rolfsii</i>)
GARLIC	White Rot (<i>Sclerotium cepivorum</i>)
BROCCOLI	Wire Stem or Black Root (<i>Rhizoctonia solani</i>)
BRUSSELS SPROUTS	Club Root (<i>Plasmodiophora brassicae</i>)
CABBAGE	
CHINESE BROCCOLI	
CHINESE CABBAGE	
CAULIFLOWER	
COLLARDS	
KALE	
MUSTARD GREENS	
COTTON	Damping Off (<i>Rhizoctonia solani</i>)
HOT PEPPERS (direct seeded)	Root & Stem Rot (<i>Rhizoctonia solani</i>)
PEANUTS	Root & Stem Rot (<i>Rhizoctonia solani</i>) Southern Stem Rot/White Mold (<i>Sclerotium rolfsii</i>)
POTATOES	Stem Canker/Black Scurf (<i>Rhizoctonia solani</i>)
VEGETABLE & BEDDING PLANTS	Root & Stem Rot, Damping Off (<i>Rhizoctonia solani</i>)

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CROP	DISEASE	RATE OF TERRACLOR FLOWABLE FUNGICIDE		RECOMMENDED APPLICATION	
		AMOUNT/ACRE	FL. OUNCE/1000 FEET OF ROW		
Peanuts	Root and Stem Rot (<i>Rhizoctonia solani</i>)	2 to 4 pints Apply in 8 to 10 gallons of water. (36 inch row spacing)	2.2 to 4.4	At Planting: Apply specified dosage as a directed in-furrow spray to the seed and surrounding soil at planting time. The soil around the seed and the covering soil should be thoroughly mixed with the product. The higher rate should be used when weather conditions are expected to be unfavorable for rapid germination, fields have a history of disease problems or minimum or low till programs are utilized. Do not use in California	
	Southern Stem or White Mold (<i>Sclerotium rolfsii</i>)	1.5 to 3 pints Apply in 8 to 10 gallons of water. (36 inch row spacing)	1.8 to 3.7		
<p>Do not exceed 2 lbs. PCNB active ingredient per acre in any one season, regardless of the method of application or formulation used. Apply only at planting time. Do not feed treated vines to livestock. Do not allow hogging down of peanuts.</p>					
Potatoes	Stem Canker/ Black Scurf (<i>Rhizoctonia solani</i>)	5 to 10 pints per acre. Apply in 10 to 20 gallons of water. (34 inch row spacing)	5.2 to 10.4	Band Application: Spray an 8½ inch band in seed furrow at time of planting. Direct spray into furrow over the seed and cover as a part of the tilling operation during planting.	
Broccoli, Chinese broccoli (gai lan, white flowering broccoli), Brussels sprouts, Cabbage, Chinese cabbage (tight-heading varieties only), Cauliflower, Collards*, Kale*, Mustard greens*	Clubroot (<i>Plasmodiophora brassicae</i>)	Mix 3 pints in 100 gallons of water. Use ½ pint of this solution per plant.		Transplant Solution: The applied dosage of TERRACLOR should be based on the severity of the disease infection. Maintain agitation to hold in suspension.	
		- OR -			
		5.6 gal. Apply in 25 gallons of water. (40 inch row spacings)	55.0	Band Application: Spray as a 12 to 15 inch band centered on the row and incorporate to a depth of 4 to 6 inches immediately prior to planting. May be used on cole crops which are direct seeded.	
	- OR -				
	7.5 gal. Apply in 30 gallons of water.	-	Broadcast Application: Apply as a preplant broadcast prior to planting. Thoroughly incorporate to a depth of 4 to 6 inches using a disc or other suitable equipment. May be used on cole crops which are direct seeded.		
	<p>Note: for effective control of clubroot, it is extremely important to thoroughly mix TERRACLOR with the soil.</p>				
	Wire Stem or Black Root (<i>Rhizoctonia solani</i>)	2.8 to 3.8 gal. Apply in 50 gallons of water.	-	Broadcast Drench Application: Apply as a soil drench at the time of or immediately after seeding. For smaller areas use 1 level tablespoon per gallon of water as a soil drench per 50 sq. ft. of seed bed. Apply with water can or similar equipment.	
		- OR -			
		1.9 to 2.8 gal. Apply in 35 gallons of water. (40 inch row spacings)	18.6 to 27.4	Row Drench Treatment: Spray as an 8 inch band centered on the row at the time of or immediately after seeding.	
<p>*Based on the available residue data, the use of TERRACLOR on collards, kale and mustard greens is restricted to the state of Georgia. Apply only at planting time. Do not exceed 30 lbs. of PCNB active ingredient per acre in any one season regardless of the method of application or formulation used.</p>					
Beans dry, succulent & snap (excluding cowpeas)	Root and Stem Rot (<i>Rhizoctonia solani</i>)	2 to 3 pints Use in 8 to 10 gallons of water. (36 inch row spacing)	2.2 to 3.3	At Planting: Spray planting furrow and covering soil at planting time. Avoid spraying directly to seed; otherwise delayed emergence may occur. Use lower rate on lighter soils.	
		In California & Arizona: 1.5 to 2.0 pints in 8 to 10 gals. (spacings as above)	1.7 to 2.2		
<p>Apply only at planting time.</p>					
Hot Peppers (direct seeded)	Root and Stem Rot (<i>Rhizoctonia solani</i>)	1.5 to 3.0 pints Use in 8 to 10 gallons of water. (40 inch row spacing)	2.2 to 3.3	In-Furrow Application: Apply only at planting time. Apply to the soil around the seed and to the covering soil as it fills the furrow.	

CROP	DISEASE	RATE OF TERRACLOR FLOWABLE		RECOMMENDED APPLICATION
		AMOUNT/ACRE	FL. OUNCE/1000 FEET OF ROW	

Cotton	Damping-off or Soreshin (<i>Rhizoctonia solani</i>)	1.5 to 3.0 pints Use in 3 to 10 gallons of water. (40 inch row spacings)	1.85 to 3.70	In-Furrow Application: Apply to soil around the seed and to the covering soil as it fills the furrow using suitable spray equipment. Two (2) nozzles work best, center the front nozzle to spray the open furrow to cover the soil around the seed and the rear nozzle to spray the covering soil as it fills the furrow.
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NOTE: Use maximum rate of TERRACLOR FLOWABLE for no-till cotton or when disease pressure is expected to be high.

For broader spectrum disease control (*Rhizoctonia* and *Pythium* spp.), TERRACLOR FLOWABLE can be mixed with pythium control products such as Terrazole[®] 4EC or Reldomil Gold[®]. Because local conditions can influence the compatibility of TERRACLOR FLOWABLE with these products, a jar test should be done before tank mixing larger quantities. See TANK MIXTURE COMPATIBILITY section of this label for guidance. TERRACLOR FLOWABLE is not compatible with Di-Syston[®] 8. When TERRACLOR FLOWABLE is applied with either Terrazole 4EC or Reldomil Gold[®], all precautions and restrictions on those labels must be observed.

Do not exceed 2 lbs. of PCNB active ingredient per acre in any one season applied as spray or granular formulations.

Apply only at planting time.

Do not allow the feeding or grazing of cotton foliage by livestock.

Ridomil Gold[®] is a registered trademark of Syngenta

Di-Syston[®] is a registered trademark of Bayer AG, Germany

Garlic	White Rot (<i>Sclerotium cepivorum</i>)	5 gal. Apply in 100 gallons of water. (24 inch row spacings)	29.4	At Planting: Apply at planting. Attach a suitable rig to the planter and spray 8 to 12 inch bands using 2 nozzles per planting furrow. Direct front nozzle to spray the bottom of the open furrow and the "seed" as it is dropped. Direct the rear nozzle to spray the covering soil.
		-- OR --		

2.5 gals. per 1,000 lbs. of "seed" cloves.

Clove Treatment: Mix in sufficient water to apply dosage as a uniform mist-spray for complete coverage of treated cloves. For optimum results add a commercial sticker to the spray solution.

Apply only at planting time. Do not exceed 20 lbs. of PCNB active ingredient per acre in any one season regardless of the method of application or formulation used.

Peppers Tomatoes	Southern Blight (<i>Sclerotium rolfsii</i>)	Mix 4.5 pints in 100 gallons of water. Use ½ pint of this solution per plant.		Transplant Solution: Apply at the time of transplanting. The solution should be agitated often to maintain a uniform suspension and assure proper dosage. Apply only at planting time. TOMATOES - Do not exceed 7.0 lbs. PCNB active ingredient per acre in any one season (based on 5000 plants/acre) or 16.5 lbs. PCNB active ingredient per acre in any one season (based on 11,733 plants/acre). PEPPERS - Do not exceed 20 lbs. PCNB active ingredient per acre in any one season.
		-- OR --		

1.2 to 1.8 gal.
Apply in 100 gallons of water. (36 inch row spacings)

In-Furrow: Apply as an in-furrow spray to the open "V" trench, just prior to planting. When cultivating, set plows as flat as possible to avoid getting untreated soil against stems of plants. Apply only at planting time. Do not exceed 7.2 lbs. of PCNB active ingredient per acre in any one season.

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

CROP	DISEASE	RATE OF TERRACLOR FLOWABLE FUNGICIDE	APPLICATION NOTES														
Vegetable Bedding Plants Beans (excluding cowpeas) Broccoli Brussel sprouts Cabbage Cauliflower Peppers Tomatoes	Root & Stem Rot, Damping-Off (<i>Rhizoctonia solani</i>)	¾ - ¾ pints 6 - 12 fl. oz.	<p>Soil drench applications to seedlings grown in containers or beds prior to transplanting into the field: Mix the specified amount in 100 gallons of water and apply according to the following guidelines. One repeat application can be made 4 to 6 weeks after the initial application.</p> <table border="1"> <thead> <tr> <th rowspan="2">Soil Depth Inches</th> <th colspan="2">Coverage for TERRACLOR Flowable Fungicide Drench Mix</th> </tr> <tr> <th>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>	Soil Depth Inches	Coverage for TERRACLOR Flowable Fungicide Drench Mix		Fl. oz./Sq. ft.	Sq. ft./100 gals.	2 or less	16	800	3	24	530	4 or more	32	400
Soil Depth Inches	Coverage for TERRACLOR Flowable Fungicide 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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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: Triple rinse (or equivalent). Pressure rinse is preferred. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State authorities.

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, expressed 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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