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

MAR 30 1994

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Judith O. Ball
UNIROYAL CHEMICAL CO. INC.
74 AMITY ROAD
Bethany, CT 06524

Subject: Label Amendment Submission of 08/12/93 in Response to PR Notice 93-7
EPA Reg. No. 400-433
TERRAGUARD 50W

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.

BEST AVAILABLE COPY



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

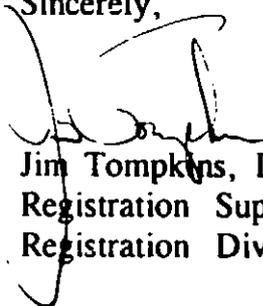
Submit the final printed labeling via the U.S. Postal Service to:

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

BEST AVAILABLE COPY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division

Judith O Ball
UNIROYAL CHEMICAL CO INC
74 AMITY RD
BETHANY CT 06524

Comment for: EPA Reg Nr.400-433
TERRAGUARD 50W

The following specific comments pertain to your WPS
labeling submission concerning the product
cited above:

Add the following User Safety Recommendation to the label
in the location shown in Section A on Part I of the Product
Worksheet in Supplement Three-A to PR Notice 93-7: "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."

Delete the crossed-out statements on your proposed label.
They are redundant statements or phrases.

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UNIROYAL

ORNAMENTAL FUNGICIDE

UNIROYAL CHEMICAL

COMPOSITION

Active Ingredients: (% by weight)	
1-[1-[[4-chloro-2-(trifluoromethyl) phenyl] imino]-2-propoxyethyl]-1H-imidazole	50.0%
Inert Ingredients	50.0%
Total:	100.0%

UNIROYAL CHEMICAL COMPANY, INC., Middlebury, CT 06749
 EPA REG. NO. 400-433
 EPA EST. NO.

006WPS

ACCEPTED
with COMMENTS
in EPA Letter Dated

MAR

Under the
Fungicide, a
as amended
registered on

Insecticide,
Pesticide Act
pesticide
Reg. No.

400-433

50.0%

50.0%

100.0%

NET WEIGHT

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

STATEMENT OF PRACTICAL TREATMENT

IF IN EYES: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.
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, or, if available, by administering syrup of Ipecac. Do not induce vomiting or give anything by mouth to an unconscious person.
IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.
IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

Causes irreversible eye damage. Harmful if swallowed, inhaled, or absorbed through skin. Do not get in eyes, on skin or on clothing. Avoid breathing dust. Prolonged or frequently repeated skin contact with this product may cause allergic skin reactions in some individuals. Wash thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and Other Handlers Must Wear: A long-sleeved shirt & long pants; waterproof gloves; shoes plus socks; protective eyewear; chemical-resistant apron when cleaning equipment, mixing, or loading. Workers handling treated plant material, especially from the cutting dip, must wear protective gloves.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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 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.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas.

PHYSICAL or CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read entire label directions before using.

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.

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Care of Protective Clothing: Rinse gloves with water before taking them off, then wash your hands. Check gloves for cuts or holes. If the gloves are damaged, dispose of properly and get a new pair.

delete

delete

or use demarc cert.

same

add (c)

ments 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 24 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; waterproof gloves; shoes plus socks; and protective eyewear.

control of certain diseases on ornamentals grown in enclosed commercial structures such as greenhouses, shade houses, nurseries and interior-scapes.

TERRAGUARD 50W is not an eradicant in plants and will only prevent the disease from spreading to adjacent plants. Best results are obtained when used in a preventative program following recommended rates and application directions. Initial applications should begin before the disease appears, however, if you do not apply as a preventative treatment, applications should begin at first sign of disease and repeated as needed.

See use and rate recommendations for specific plants and diseases.

MIXING INSTRUCTIONS

Fill the mixing tank with half the required amount of water. Then add TERRAGUARD 50W with agitation running to insure proper mixing and suspension of product. Fill the tank with the remaining amount of required water.

The mixture of TERRAGUARD 50W and water should be continuously agitated to assure uniform application.

APPLICATION NOTES

FOLIAR SPRAYS: The recommended rate of application is 1 gallon of spray mixture to cover 200 sq. ft. of area or 200 gallons per acre. This will provide foliage coverage just to the point of drip. Do not handle treated plants until sprays have dried.

SOIL DRENCHES: Apply the recommended rate of TERRAGUARD 50W according to the guidelines below. The application should be made to plants which have been well watered one day prior to application. For best results, irrigation with additional water should not be made until 24 hours after application.

FOR CONTAINER GROWN PLANTS

Pot Diameter (inches)	Minimum Drench Volume (fl. oz./pot)
4	1.5
5	3
6	4
8	7
10	13
12	18

ORNAMENTALS

FOR BED AND BENCH GROWN PLANTS

Soil Depth (inches) to be Drenched	Coverage for TERRAGUARD 50W Drench Mix	
	Fl. oz./Sq. ft.	Sq. ft./100 gals.
2 or less	16	800
3	24	530
4 or more	32	400

DISEASES CONTROLLED

Common Name	Causal Agent
Aerial Blight/Root Rot	<i>Rhizoctonia solani</i>
Black Root Rot	<i>Thielaviopsis spp.</i>
Leaf Spot	<i>Alternaria spp.</i>
Leaf Spot	<i>Exserohilum rostratum</i>
Petiole Rot	<i>Myrothecium roridum</i>
Powdery Mildew	<i>Erysiphe cichoracearum</i>
Powdery Mildew	<i>Erysiphe lagerstroemiae</i>
Powdery Mildew	<i>Podosphaera spp.</i>
Powdery Mildew	<i>Sphaerotheca pannosa</i>
Root Rot/Crown Canker	<i>Cylindrocladium scoparium</i>
Root Rot/Damping Off	<i>Cylindrocladium theae</i>
Root Rot/Petiole Rot	<i>Cylindrocladium spathiphylli</i>
Scab	<i>Venturia inaequalis</i>

USE AND RATE RECOMMENDATIONS

CROP	DISEASE	OUNCES TERRAGUARD 50W PER 100 GALS. (TSP./GAL.)	APPLICATION TYPE AND REMARKS
Bedding Plants Flowering Plants Foliage Plants such as: Areca Palm	Helminthosporium Leaf Spot (<i>Exserohilum rostratum</i>) (<i>Helminthosporium rostratum</i>)	4 - 8 ($\frac{2}{3}$ - $1\frac{1}{2}$)	FOLIAR SPRAY: Apply at weekly intervals as needed.
Boston Fern English Ivy	Rhizoctonia Aerial Blight (<i>Rhizoctonia solani</i>)		
Aphelandra Columbine Dianthus Heuchera Impatiens Lupine Pansy Philodendron Poinsettia Pothos Vinca	Rhizoctonia Root Rot (<i>Rhizoctonia solani</i>)	4 - 8 ($\frac{2}{3}$ - $1\frac{1}{2}$)	SOIL DRENCH: Apply at 3 - 4 week intervals as needed.

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CROP	DISEASE	OUNCES TERRAGUARD 50W PER 100 GALS. (TSP./GAL.)	APPLICATION TYPE AND REMARKS
Pansy	Thielaviopsis Black Root Rot (<i>Thielaviopsis spp.</i>)	2 - 4 ($\frac{1}{2}$ - $\frac{3}{4}$)	SOIL DRENCH: Apply at 3 to 4 week intervals as needed. Use higher rate under heavy disease pressure.
Spathiphyllum	Cylindrocladium Root Rot and Petiole Rot (<i>Cylindrocladium spathiphylli</i>)	4 - 8 ($\frac{3}{4}$ - $1\frac{1}{2}$)	SOIL DRENCH: Use higher rates under heavier disease pressure which can occur under warmer conditions. Apply at 2 to 4 week intervals as needed. NOTE: Application may be made as a heavy spray over the foliage however, the volume applied should be the same as that required for the soil drench to insure adequate soil penetration.
			CHEMIGATION: Apply as a heavy spray to plants. For best results, use sufficient water volume to ensure adequate soil penetration. Repeat applications every 2 - 4 weeks as needed. Refer to Use Directions for Chemigation.
Spathiphyllum Syngonium	Myrothecium Petiole Rot (<i>Myrothecium roridum</i>)	4 - 8 ($\frac{3}{4}$ - $1\frac{1}{2}$)	FOLIAR SPRAY: Apply at weekly intervals as needed. Use higher rates under heavy disease pressure. Lower rates may be used for subsequent applications.
Zinnia	Powdery Mildew (<i>Erysiphe cichoracearum</i>)		
Woody Ornamentals such as: Arctostaphylos Azalea Cornus Gaultheria Kalmia Leucothoe Pieris Rhododendron Vaccinium	Cylindrocladium Root Rot, Wilt and Crown Canker (<i>Cylindrocladium scoparium</i>) (<i>Cylindrocladium theae</i>)	12 - 16 (2 - $2\frac{3}{4}$)	FOR PLANTS BEING PROPAGATED: The cutting soak plus soil drench application may be necessary to provide control, therefore treatment should consist of both methods of application. Pre-stick cutting soak: Soak cuttings for 10 minutes. Slight agitation of the mixture is required to maintain proper suspension. Workers handling treated plant material must wear protective gloves.
		6 - 8 (1 - $1\frac{1}{2}$)	Soil Drench: The higher rate should be used under heavier disease pressure. The initial drench treatment should be made 3 to 4 weeks following the pre-stick cutting soak. Apply additional drenches at 3 to 4 week intervals as needed. Normally 2 to 4 applications are sufficient. NOTE: Do not exceed 8 ozs./600 sq.ft. of bed or bench area as injury and/or inhibition of rooting may occur.
		6 - 12 (1 - 2)	FOR PLANTS WITH ESTABLISHED ROOT SYSTEMS: Soil Drench: Use higher rate under heavier disease pressure. Lower rates may be used in subsequent application. Apply additional drenches at 3 to 4 week intervals as needed. Normally 2 to 4 applications are sufficient. If reinfection occurs at a later date, retreatment may be necessary.
		6 - 12 (1 - 2)	CHEMIGATION: Use 6 - 8 ozs. (plants being propagated) or 6 - 12 oz. (established plants) in 100 gallons of water. Apply as heavy spray to plants using sufficient water volume to ensure adequate soil penetration for best results. Repeat applications every 3 - 4 weeks as needed. Normally 2 to 4 applications are sufficient. Refer to Use Directions for Chemigation. NOTE: Do not exceed 8 ozs./600 sq. ft. of area for plants being propagated as injury and/or rooting inhibition may occur.
Crape Myrtle	Powdery Mildew (<i>Erysiphe lagerstroemiae</i>)	4 - 8 ($\frac{3}{4}$ - $1\frac{1}{2}$)	FOLIAR SPRAY: Apply at weekly intervals as needed. Use higher rates under heavy disease pressure. Lower rates may be used for subsequent applications.
Flowering Crab Apple	Powdery Mildew (<i>Podosphaera spp.</i>) Scab (<i>Venturia inaequalis</i>)	4 - 8 ($\frac{3}{4}$ - $1\frac{1}{2}$)	FOLIAR SPRAY: Apply at weekly intervals as needed. For increased scab control, use 2 - 4 ozs./100 gals. tank mixed with a protectant fungicide.
Pittosporum	Alternaria Leaf Spot (<i>Alternaria spp.</i>)	4 - 8 ($\frac{3}{4}$ - $1\frac{1}{2}$)	FOLIAR SPRAY: Apply at weekly intervals as needed.
Rose	Powdery Mildew (<i>Sphaerotheca pannosa</i>)	4 - 16 ($\frac{3}{4}$ - $2\frac{3}{4}$)	FOLIAR SPRAY: Apply at 7 - 14 day intervals as needed. For initial applications to an existing infection, use 16 ozs./100 gals. alone or 8 ozs./100 gals. tank mixed with an eradicant fungicide. Use 4 - 8 ozs./100 gals. in a maintenance program for subsequent applications or under light disease pressure.

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PLANT TOLERANCE:

Neither the manufacturer nor the seller has determined whether or not TERRAGUARD 50W 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 TERRAGUARD 50W 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. Observe the treated plants for symptoms of phytotoxicity which may occur as foliage burn or, for plants being propagated, as an inhibition of rooting. This may take up to two months for species that do not root readily. The user assumes all risks arising out of application to unlabeled plants.

USE DIRECTIONS FOR CHEMIGATION: For control of *Cylindrocladium spp.* on *Spathiphyllum* and woody ornamentals.

In addition to the above use rates and recommendations, the following precautions must be observed when using this product in any type of irrigation system:

Apply this product only through the following systems:

1) Overhead sprinklers such as impact or micro-sprinklers, 2) Micro-irrigation such as spaghetti-tube or individual tube irrigation, 3) Mist-type irrigation such as fog systems, 4) Hand-held calibrated irrigation equipment such as the hand-held wand with injector.

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

Crop injury or lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. Do not connect an irrigation system, (including greenhouse systems), used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

POSTING

This sign is in addition to any sign posted to comply with the Worker Protection Standard.

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive areas. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate

background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDE IN IRRIGATION WATER.

SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year.

Chemigation systems connected to public water systems must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water systems should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where the pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

IMPORTANT NOTICE

The directions and recommendations on this label are derived from research to ensure correct product usage. Insufficient control may result from extremes in weather conditions, or lack of following label instruction. The use of this product is beyond the control of Uniroyal and seller. Buyer is responsible for proper use as per directions and acceptance of product performance under extraordinary or unusual weather conditions.

Uniroyal is not responsible for losses or damage resulting from using TERRAGUARD in any manner not specifically recommended.

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 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.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

STORAGE: Store in a cool, dry location.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. 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 Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL:

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

Paper: 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.

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