

113201
SHAUGHNESSEY NO.

8
REVIEW NO.

EEB BRANCH REVIEW

DATE: IN 7/20/81 OUT 8/5/81

FILE OR REG. NO. 372-LA

PETITION OR EXP. PERMIT NO. _____

DATE OF SUBMISSION 3/25/81

DATE RECEIVED BY HED 7/17/81

RD EQUESTED COMPLETION DATE 8/17/81

EEB ESTIMATED COMPLETION DATE _____

RD ACTION CODE/TYPE OF REVIEW 160/01d Chemical Routine Me-Too

TYPE PRODUCT(S): I, D, H, F, N, R, S Fungicide

DATA ACCESSION NO(S). _____

PRODUCT MANAGER NO. H. Jacoby (21)

PRODUCT NAME(S) Ornalin

COMPANY NAME Mallinckrodt, Inc.

SUBMISSION PURPOSE Proposed conditional registration of

Ornamental and Turfgrass uses

SHAUGHNESSEY NO.	CHEMICAL, & FORMULATION	% A.I.
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_____	_____	_____
_____	_____	_____
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ORNALIN

100 Pesticide Label Information

100.1 Pesticide Use

Contact fungicide for control of botrytis on ornamental plants and sclerotinia on turfgrasses.

100.2 Formulation Information

A.I. -3-(3,5-dichlorophenyl)-5-ethenyl-5-methyl-1,3-oxazolidine-2,4-dione-----50%
Inerts-----50%

100.3 Applications Methods, Directions, Rates

For Professional Use Only

PLANT TYPE		REMARKS
HERBACEOUS		As foliar spray, use 1.0 to 1.5 lb. per 100 gal. of water. Spray all surfaces of the plant to drip.
African Violet	Impatiens	
Allyssum	Ivy	Begin applications when conditions for disease prevail. Repeat every 10 to 14 days during this period.
Anthurium	Kalanchoe	
Aphelandra	Liatris	
Begonia	Marigold	
Calceolaria	Pelargonium	
Carnation	Peperomia	
Chrysanthemum	Petunia	
Coleus	Pilea	
Crossandra	Primula	
Cyclamen	Saintpaulia	
Diffenbachia	Salvia	
Dracaena	Saxifraga	
Euphorbia	Scindapsus	
Fuchsia	Senecio	
Gerbera	Sinningia	
Gynura	Statice	
WOODY		
Azalea	Poinsettia	
Euonymous	Rhododendron	
Hydrangea	Rose	
BULB AND CORM		As foliar spray, use 1.0 to 1.5 lb. per 100 gal. of water. Repeat every 10 to 14 days.
Gladiolus		
Lily		
Narcissus		
Tulip		
		For bulb/corm dip, use 1.5 to 2.0 lb per 100 gal. of water.

TURFGRASSES	DISEASES Dollar Spot (<u>Scierotinia homeocarpa</u>) Apply 2 oz. in 5 gal. of water per 1000 sq. ft. Repeat in 2 to 3 weeks while disease conditions prevail. Fusarium Patch (<u>Fussarium nivale</u> without snow cover) Apply 2 to 4 oz. in 5 gal. of water per 1000 sq. ft. Repeat in 2 to 3 weeks while disease conditions prevail.
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100.4 Target Organisms

Botrytis spp. and Sclerotinia spp. on ornamental herbaceous, woody and bulb crops grown in green houses and outside.

Slerotinia homeocarpa (Dollar spot) on turfgrasses.

100.5 Precautionary Labeling

ENVIRONMENTAL HAZARDS

THIS PRODUCT IS TOXIC TO FISH.

Keep out of lakes, ponds or streams.

Do not contaminate water by cleaning of equipment or disposal of wastes.

Not dangerous to honey bees.

101 Physical and Chemical Properties

Refer to vinclozolin file (113201).

102 Behavior in the Environment

Refer to vinclozolin field (113201).

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Toxicological Properties

<u>Species</u>	<u>Result</u>	<u>Test Substance</u>	<u>Validation Category</u>
Bobwhite quail	LD ₅₀ >2150 mg/kg	96.5% AI	Core
Bobwhite quail	LC ₅₀ >5620 ppm	96.5% AI	Core
Mallard	LC ₅₀ >5620 ppm	96.5% AI	Core
Bluegill	LC ₅₀ = 47.3 ppm	96.5% AI	Suppl.
Rainbow trout	LC ₅₀ = 18 ppm	96.5% AI	Suppl.
<u>Daphnia</u>	LC ₅₀ = 4 ppm	96.5% AI	Core

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Hazard Assessment

104.1

Discussion

Ornalin is identical to Ronilan, but they are marketed by different companies. Therefore the risk assessment is based upon the data that were submitted to support the registration of Ronilan.

Ornalin is to be applied on turfgrass at the rate of 2 to 4 oz. per 1000 sq. ft. or 2.73 to 5.45 lb active ingredient per acre. This will produce maximum expected residues of 1350 ppm on the grass, 325 ppm on insects and 4.0 ppm in the top 6 inches of water. It is to be applied to ornamentals at the rate of 0.5 to 0.75 lb active ingredient per 100 gallons of water. Both ornamentals and turfgrass are considered to be minor use crops.

104.2

Likelihood of Adverse Effects to Non-Target Organisms

Neither ornamentals nor turfgrass are considered to be areas of major wildlife utilization. Therefore, exposure to non-target animals is minimal. Additionally, neither use presents an unacceptable hazard to exposed organisms.

Although the residues in the top 6 inches of water immediately following application (4 ppm) are greater than the LC₅₀ value of Daphnia and 1/10 the LC₅₀ value of rainbow trout (4 ppm and 18 ppm, respectively) exposure of aquatic organisms to Ornalin is unlikely. An estimated environmental concentration indicated that runoff and spray drift problems are minimal, and the hydrolytic half-life at 25°C and pH 6 is only 61 hours. Therefore no hazards are expected. Also, the label warns against contaminating lakes, ponds or streams.

104.3

Endangered Species Considerations

No acute hazards are expected.

104.4 Adequacy of Toxicity Data

The submitted data are acceptable to assess the risk from the potential use of Ornalin on ornamentals and turfgrass.

104.5 Additional Data Required

No more studies are needed for these uses. However, as indicated in the EEB reviews of 7/16/80 and 12/10/80 additional warmwater and coldwater fish acute studies on the technical grade of vinclozolin are needed to support the registrations of other formulations or more hazardous uses. The avian reproduction study that was previously requested for the use of Ronilan on strawberries will also be needed to support the registration on crops that will expose breeding birds to Ornalin.

107 Conclusions

107.1 Data Adequacy Conclusions

The submitted data are acceptable to assess the risk from the potential use of Ornalin on ornamentals and turfgrass.

107.2 Data Requests

No more studies are needed for these uses; however, as indicated in the EEB reviews of 7/16/80 and 12/10/80 additional warmwater and coldwater fish acute studies on the technical grade of vinclozolin are needed to support the registrations of other formulations or more hazardous uses. The avian reproduction study that was previously requested for the use of Ronilan on strawberries will also be needed to support the registration on crops that will expose breeding birds to Ornalin.

107.3 Recommendations

EEB has completed an incremental risk assessment [3(c)(7) findings] of the proposed conditional registration of Ornalin for use on ornamentals and turfgrass. Based upon the available data EEB concludes that the proposed uses provide for no significant increase in exposure or acute risks to non-target organisms. Therefore, EEB concurs with this conditional registration.

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