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JAN 8 1986

Mallinckrodt, Inc.  
P.O. Box 5439  
3600 North Second Street  
St. Louis, MO 63147

Attention: C. E. Bardsley

Gentlemen:

Subject: Ornalin Contact Fungicide Wettable  
Powder/Turf  
EPA Registration No. 372-56  
Your Amendment Dated July 31, 1985

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable, provided the following change is made. A stamped copy is enclosed for your records.

Delete the name "vinclozolin" from the ingredient statement.  
This name cannot be used on labeling until it becomes an ANSI common name.

Submit five copies of the finished label when printing is completed.

Sincerely yours,

  
Henry M. Jacoby  
Product Manager (21)  
Fungicide-Herbicide Branch  
Registration Division (TS-767)

Enclosure

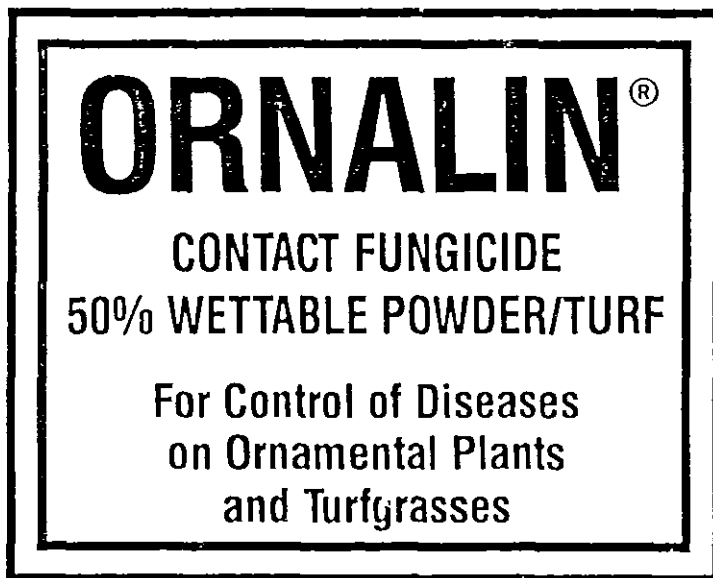
88832:Fields:RD-83:KENCO:11/26/85:12/9/85:dej:VO  
REVISED:88838:Fields:12/12/85:12/23/85:EK

CONCURRENCES

|      |  |  |  |  |  |  |  |  |
|------|--|--|--|--|--|--|--|--|
| COL  |  |  |  |  |  |  |  |  |
| NAME |  |  |  |  |  |  |  |  |
| DATE |  |  |  |  |  |  |  |  |



2 LB.  
(0.9 Kg)



ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

JAN 8 1986

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

372-56

**ACTIVE INGREDIENT:**

Vinclozolin: 3-(3,5-Dichlorophenyl)-5-ethenyl-  
5-methyl-2,4-oxazolidinedione ..... 50%

**INERT INGREDIENTS** ..... 50%

**TOTAL** ..... 100%

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

**CAUSES EYE AND SKIN IRRITATION**

This product is a potential skin sensitizer.

Do not get on skin, in eyes or on clothing.

**FIRST AID** If contacted, flush eyes immediately with water  
for at least 15 minutes. Remove contaminated clothing and  
wash exposed skin thoroughly with soap and water. Consult  
physician if irritation persists.

SEE BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

**EPA REG. NO. 372-56**  
**EPA EST. NO. 602-MO-1**

*Manufactured For*

**Mallinckrodt, Inc.**

St. Louis, Missouri 63147

# PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION** Avoid contact with skin, eyes or clothing. May cause irritation. Avoid breathing dust. **IN CASE OF CONTACT**, immediately flush eyes or skin with plenty of water. **GET MEDICAL ATTENTION** if irritation persists.

## ENVIRONMENTAL HAZARDS

**THIS PRODUCT IS TOXIC TO FISH.** Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of wastes. Not dangerous to honey bees.

## DIRECTIONS FOR USE

**IT IS A VIOLATION OF FEDERAL (U.S.A.) LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.**

**NOTE TO USER:** Wash thoroughly with soap and water after handling. Wash contaminated clothing before reuse. Do not contaminate feed or food. Keep children and pets out of treated area during application.

**ORNALIN<sup>®</sup>** is effective for control of *Botrytis* spp. and *Sclerotinia* spp. on herbaceous and woody ornamentals and bulb crops grown in greenhouses and outside.

**IMPORTANT:** **ORNALIN<sup>®</sup>** has demonstrated safety in use to the plants listed. However, all species and varieties have not been tested. When treating large numbers of plants of a single variety, apply to a few plants and observe prior to full-scale application.

**ORNALIN<sup>®</sup>** is effective on all turfgrasses for control of Dollar Spot (*Sclerotinia homoeocarpa*), Helminthosporium (Leaf Spots) and Melting Out (*Drechslera* spp.), Red Thread and Pink Patch (*Limonomyces rosapelilis* and *Laelisaria tuelliformis*, respectively), and Fusarium Patch (*Fusarium nivale*) without prolonged snow cover.

Tank mixes of **ORNALIN** and **FUNGO-50<sup>®</sup>** effectively control the above diseases plus complexes of Brown Patch (*Rhizoctonia solani*) and Anthracnose (*Colletotrichum graminicola*) on all turfgrasses.

Apply indicated rates of **ORNALIN** in 2-4 gal. of water per 1,000 sq. ft. of turf after mowing and allow foliage to dry before irrigation. Do not exceed label application rates for these diseases. **ORNALIN** cannot be mixed with any product bearing a label prohibition against such mixing.

| Disease        | Application Rate<br>oz./1,000 sq. ft. |            | Application***<br>Intervals |
|----------------|---------------------------------------|------------|-----------------------------|
|                | Preventive                            | Curative** |                             |
| Dollar spot    |                                       |            |                             |
| Leaf spots     |                                       |            |                             |
| Melting out    | 1                                     | 2          | 14-28 days                  |
| Red thread     |                                       |            |                             |
| Pink patch     |                                       |            |                             |
| Fusarium patch | 2                                     | 4          | 10-21 days                  |

For complexes of the above diseases, **ORNALIN** may be tank-mixed with **FUNGO-50** in a similar manner to the following:

|             | ORNALIN + FUNGO-50<br>oz./1,000 sq. ft. |       |            |
|-------------|-----------------------------------------|-------|------------|
|             | 1 + 1                                   | 2 + 2 |            |
| Brown patch | 1 + 1                                   | 2 + 2 | 10-21 days |
| Anthracnose | 1 + 1                                   | 2 + 2 | 10-21 days |

\* Trademark of MALLINCKRODT, INC. (brand of thiophanate-methyl system c turf fungicide)

\*\* To control existing infections, apply the curative rate. Apply subsequent treatments at the preventive rate when control is achieved.

\*\*\* Retreat at shorter interval or use higher rate if conditions favor disease buildup.

## STORAGE AND DISPOSAL

**STORAGE:** Not sensitive to light. Stable at normal temperatures and humidities. Store in a dry place in a well-closed container.

**PROHIBITIONS:** Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

**PESTICIDE DISPOSAL:** Pesticide, spray mixture or rinse water that cannot be used according to label instructions must be disposed of according to applicable Federal, State or local procedures.

**CONTAINER DISPOSAL:** Completely empty bag by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of bags in a sanitary landfill or by incineration if allowed by State and local authorities.

## WARRANTY

This material conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather, water practices, nature of soil or potting medium, the disease problem, condition of the crop, incompatibility with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given hereon. NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY IS MADE.

## PLANT TYPES AND SPECIES

| HERBACEOUS ORNAMENTALS |                     | WOODY ORNAMENTALS |              |
|------------------------|---------------------|-------------------|--------------|
| African Violet         | Hoya                | Almond            | Hydrangea    |
| Agave                  | Hyacinth            | Bougainvillea     | Juniper      |
| Alyssum                | Impatiens           | Arbutus           | Pachysandra  |
| Anthurium              | Iris                | Camelia           | Palm, Arecia |
| Aphelandra             | Ivy                 | Cedar             | Pine         |
| Artemisia              | Kalanchoe           | Cherry            | Plum         |
| Aster                  | Liatris             | ornamental        | Poinsettia   |
| Begonia                | Lily                | Chokeberry        | Polyscias    |
| Bleeding Heart         | Lupine              | Crape Myrtle      | Redwood      |
| Calceolaria            | Mango               | Elm               | Rhododendron |
| Carnation              | Monarda             | Eucalyptus        | Schefflera   |
| Chrysanthemum          | Narcissus           | Ficus             | Spice        |
| Cineraria              | Orchid (Dendrobium) | Fir               | Vine         |
| Coleus                 | Pelargonium         |                   |              |
| Complene               | Peperomia           |                   |              |
| Coral Bells            | Petunia             |                   |              |
| Crossandra             | Philodendron        |                   |              |
| Croton                 | Phlox               |                   |              |
| Cyclamen               | Pilea               |                   |              |
| Daffodil               | Primrose            |                   |              |
| Delphinium             | Primula             |                   |              |
| Dianthus               | Salicaria           |                   |              |
| Dierbachia             | Salvia              |                   |              |
| Dracaena               | Saururus            |                   |              |
| Easter Lily            | Sedum               |                   |              |
| Episcia                | Serenoa             |                   |              |
| Euphorbia              | Shasta Daisy        |                   |              |
| Fuchsia                | Sinningia           |                   |              |
| Gazania                | Snake Plant         |                   |              |
| Geranium               | Statice             |                   |              |
| Gerardia               | Tulip               |                   |              |
| Gradiolus              | Violet              |                   |              |
| Gynura                 | Zinnia              |                   |              |
| Gypsophila             |                     |                   |              |

| CUT FLOWERS                                                                                                      |               | POSTHARVEST SPRAY                                                                                         |  |
|------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------|--|
| For prevention of Gray Mold ( <i>Botrytis cinerea</i> ) on the following cut flowers in cold storage or transit: |               | Apply 0.75 to 1.5 lb. per 100 gal. of water after harvest and grading prior to cold storage and shipment. |  |
| Alstroemeria                                                                                                     | Iris          |                                                                                                           |  |
| Carnation                                                                                                        | Leptospermum  |                                                                                                           |  |
| Chrysanthemum                                                                                                    | Shasta Daisy  |                                                                                                           |  |
| Cornflower                                                                                                       | Statice       |                                                                                                           |  |
| Daisy                                                                                                            | Sweet William |                                                                                                           |  |
| Gypsophila                                                                                                       |               |                                                                                                           |  |

| CUT FLOWERS (Gladiolus & Rose)                                                                                                                       |  | POSTHARVEST DIP                                                                                                                                                                                 |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| For prevention of Gray Mold ( <i>Botrytis gladiolorum</i> ) on gladiolus spikes and ( <i>Botrytis cinerea</i> ) on roses in cold storage or transit: |  | Dip flower buds 3 to 4 seconds in 1.5 to 3.0 lb. per 100 gal. of water (1/4 to 1 lb. per gal.) after grading and prior to cold storage. Addition of a wetting agent will enhance spreadability. |  |

| ROSE BUDWOOD AND BAREFOOT NURSERY STOCK                                                          |  | SPRAY OR DIP                                                                                   |  |
|--------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------|--|
| For prevention of Gray Mold ( <i>Botrytis cinerea</i> ) on budwood and nursery stock in storage: |  | Spray or dip plants to runoff in 1.5 lb. per 100 gal. of water after harvest prior to storage. |  |

| BULB AND CORM                                                             |           | BULB/CORM DIP                                                               |  |
|---------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------|--|
| For prevention of Gray Mold ( <i>Botrytis cinerea</i> ) on bulb and corm: |           | Use 1.5 to 2.0 lb. per 100 gal. of water. Maintain suspension by agitation. |  |
| Gladiolus                                                                 | Narcissus |                                                                             |  |
| Hyacinth                                                                  | Scilla    |                                                                             |  |
| Iris                                                                      | Tulip     |                                                                             |  |
| Lily                                                                      |           |                                                                             |  |

| FIELD GROWN FLOWERS                                      |  | AERIAL APPLICATION                                                                                                                |  |
|----------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------|--|
| For Gray Mold ( <i>Botrytis</i> spp.) during production: |  | Use 1.5 lb. in 20 to 25 gal. of water per acre. Apply when conditions for disease prevail. Repeat every 10 to 14 days, as needed. |  |

NOTE: \* Use only on non-bearing plants.

\*\* Do not spray poinsettias in color. Also, some cultivars may be sensitive to leaf spotting.

NOTE: All plants listed are subject to *Botrytis* spp. Those indicated are also subject to *Ciboria*, *Monilia*, *Oryzomyces*, *Sclerotinia* and *Stromatolites*, spp.