

BASF

7969-124

09/30/1998 7969-124

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Best copy available

Cygnus[®]

fungicide

For use on greenhouse ornamentals

Active ingredient

Kresoxim-methyl (methyl (E)-2-methoxyimino-2-[2-(o-tolylloxymethyl)

phenyl] acetate) 50.0%

Inert ingredients 50.0%

Total 100.0%

EPA Reg. No. 7969-

EPA Est. No. 7969-___

KEEP OUT OF REACH OF CHILDREN.

CAUTION

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

See the attached booklet for complete Precautionary Statements, Directions For Use, Statement of Practical Treatment, and Conditions of Sale and Warranty.

Net contents: 1 pound (0.454 kilograms)

BASF Corporation
P.O. Box 13528, Research Triangle Park, NC 27709

ACCEPTED
9/30/98
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 7969-124

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Precautionary Statements

Hazards to Humans and Domestic Animals

Harmful if swallowed, inhaled, or absorbed through skin. Causes eye irritation. Do not get on skin, in eyes, or on clothing. Avoid breathing vapor or spray mist.

Statement of Practical Treatment

If on skin: Wash with plenty of soap and water. Get medical attention.

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

If in eyes: Flush with plenty of water. Call a physician if irritation persists.

If swallowed: Call a physician or Poison Control Center. Immediately 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.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Follow the manufacturer's instructions for cleaning and maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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.
- 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.

Environmental Hazards

Do not apply directly to water, areas where surface water is present, or intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters.

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 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 part 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 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 12 hours.

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:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

All applicable directions, restrictions, precautions and Conditions of Sale and Warranty are to be followed. This labeling must be in the user's possession during application.

Storage and Disposal

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

Pesticide disposal: Wastes resulting from using this product may be disposed of on site or at an approved waste disposal facility. If these wastes cannot be disposed of 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

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

In Case of Emergency

In case of large-scale spillage regarding this product, call:

CHEMTREC 800-424-9300
BASF Corporation 800-832-HELP

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment.
- Your local poison control center (hospital).
- BASF Corporation (800-832-HELP)

Steps to be taken in case material is released or spilled:

Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing, and wash affected skin areas with soap and water. Wash clothing before re-use. Keep the spill out of all sewers and open bodies of water.

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I. General Information

This package contains Cygnus® fungicide, a 50% water-dispersible granule (WG) which controls powdery mildew on the following greenhouse-grown ornamental plants:

- bedding plants
- cut flowers
- poinsettias
- trees

Cygnus is a foliar fungicide. It has protective, curative, and eradant activity against powdery mildew of ornamentals. For best results, however, a protective barrier of Cygnus must be established and maintained on the plant surface. Cygnus should be used in a rotation program with other non-strobilurine fungicides.

Mode of Action

The active ingredient in Cygnus is kresoxim-methyl, which belongs to the strobilurin class of fungicides and is a mitochondrial electron transport inhibitor (METI).

Crop Tolerance

The phytotoxic potential of Cygnus has been assessed on a wide variety of common ornamental plants with no phytotoxicity observed. However, all plant species and their varieties and cultivars have not been tested with possible tank mix combinations, sequential pesticide treatments, and adjuvants or surfactants. Local conditions can also influence crop tolerance and may not match those under which BASF has conducted testing. Therefore, before using Cygnus, test the product on a sample of the crop to be treated to ensure that a phytotoxic response will not occur as a result of applications. Refer to Tolerant Plant Species.

Resistance Management

The repeated and exclusive use of Cygnus, as with many other fungicides, may allow less sensitive strains of target fungi to build over time and may reduce disease control. To maintain the performance of Cygnus in the greenhouse, BASF advises strict adherence to the following resistance management strategies:

- Do not make more than a total of 6 applications of Cygnus per season.
- BASF recommends making no more than 3 sequential applications of Cygnus. Then alternate to an effective nonstrobilurin fungicide with a different mode of action for at least 2 applications. Thereafter, Cygnus can be sprayed again for a maximum of 3 additional consecutive times.

Cleaning Spray Equipment

Spraying equipment must be cleaned thoroughly before and after applying this product, particularly if a product with the potential to injure crops was used prior to Cygnus.





Coverage

Apply at a rate of 100 gallons per acre and spray the foliage to the point of drip. Thorough coverage of the plants is required for optimum disease control.

II. Application Instructions

As a preventative treatment, apply 1.6 ounces of Cygnus in 100 gallons of water when conditions favor disease development or at the first sign of infection. Applications made after infection will require the higher rate of 3.2 ounces and shorter application intervals. Refer to section VII. Crop-Specific Information for more information.

Cygnus is available in the tip 'n' pour® container.

1) Tip the container to fill the measuring compartment with Cygnus.	 <p>measuring compartment</p>
2) Tip the container back to fill the dispensing compartment with Cygnus.	 <p>dispensing compartment</p>
3) Tap lightly to level out the dispensed product. Check the accuracy of the quantity of Cygnus in the dispensing compartment.	
4) Remove the cap and dispense the correct amount of Cygnus.	

III. Additives

Additives or spray adjuvants should not be mixed with Cygnus® fungicide unless specifically recommended by BASF. Under hard water conditions, an additive may be required (see section V. General Tank Mixing Information).

IV. Mixing Order

- 1) **Water:** Begin by agitating a thoroughly clean sprayer tank half full of clean water.
 - 2) **Product:** In PVA bags: The water-soluble PVA bag will dissolve in water to allow the contents to disperse. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
To prepare a spray solution for large volume application, use a mixing tank or mixing vat first to get the product into suspension before transferring suspension to application equipment.
 - 3) **Water-dispersible products:** such as Cygnus
 - 4) **Water-soluble products:**
 - 5) **Emulsifiable concentrates**
 - 6) **Water-soluble additives**
 - 7) **Remainder** quantity of water
- Maintain constant agitation during application.

V. General Tank Mixing Information

Cygnus can be tank mixed with most recommended fungicides and insecticides. However, all varieties and cultivars have not been tested with possible tank mix combinations. Local conditions can influence crop tolerance and may not match those under which BASF has conducted testing. Other local conditions such as hard water may adversely affect performance and may require an adjuvant or spreader-sticker. Therefore, before using any tank mix (fungicides, insecticides, adjuvants, or spreaders/stickers), test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of applications.

VI. General Restrictions and Limitations - All Crops

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- Do not make more than 6 applications of Cygnus® fungicide per season.
- **Restricted Entry Interval (REI): 12 hours.**
- Do not apply to crops subjected to **stress** conditions such as drought or widely fluctuating temperatures, as crop injury may result.
- Do not apply to crops that show **injury** (leaf phytotoxicity or plant stunting) produced by any other prior pesticide applications, because this injury may be enhanced or prolonged.
- Do not apply through any type of **irrigation** equipment.
- Do not apply this product as a smoke, mist, fog, or aerosol.
- Do not apply **Cygnus** to crops grown in **lathe houses**.

8-29-98 10:25AM REGULATORY AFFAIRS

VII. C. op-Specific Information

Bedding Plants*

Apply 1.6 ounces of Cygnus® fungicide in 100 gallons of water at 7-10 day intervals as a preventative treatment. Applications made after infection will require the higher rate of 3.2 ounces of Cygnus. Spray to the point of drip for all applications. The following bedding plants have been determined to be tolerant to Cygnus applications:

Ageratum
Dahlia
Dianthus
Dusty Miller
Gazania
Geranium
Marigold
Pansy
Petunia
Portulaca
Snapdragon, Potomac Rose
Potomac White
Spiraea, Magic Carpet
Spengli
Verbena
Vinca
Zinnia

Poinsettias*

Apply 1.6 ounces of Cygnus in 100 gallons of water at 7-10 day intervals as a preventative treatment. Applications made after infection will require the higher rate of 3.2 ounces of Cygnus. Spray to the point of drip for all applications. The following poinsettia varieties have been determined to be tolerant to Cygnus applications:

Angelica White (V-17)
Bonita
Cortez Cra ne
Cortez Red
Cortez White
Fisher (33C J)
Flirt
Freedom
Marblestar
Manet
Maven
Noblestar
Picacho
Pink Peppermint
Puebla
Sonora Jungle
Sonora Pink
Sonora Red

Cut Flowers*

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For cut flowers other than roses, apply 1.6 ounces of Cygnus in 100 gallons of water at 7-10 day intervals as a preventative treatment. Applications made after infection will require the higher rate of 3.2 ounces of Cygnus. Spray to the point of drip for all applications. The following cut flower varieties have been determined to be tolerant to Cygnus applications:

Alstromeria, Libelle
Gerbers, Pressley
Lilac, Syringa
Henny
Limonium, Blue Fantasia 100
Lily, Oriental
Lily, Stargazer

Roses

For roses only, apply 1.6 ounces of Cygnus in 100 gallons of water per 10,000 square feet at 7-10 day intervals as a preventative treatment. Applications made after infection will require the higher rate of 3.2 ounces of Cygnus. Spray to the point of drip for all applications.

Trees*

Apply 1.6 ounces of Cygnus in 100 gallons of water at 7-10 day intervals as a preventative treatment. Applications made after infection will require the higher rate of 3.2 ounces of Cygnus. Spray to the point of drip for all applications. The following greenhouse grown tree species have been determined to be tolerant to Cygnus applications:

Oak, Swamp
Chestnut
Dogwood, Flowering
Pink
Red
White

*Except in California.

Crops:	
This product can be used on the following greenhouse grown crops:	
Bedding Plants Cut Flower Poinsettias Roses Trees	
Crops covered in this label are host to the powdery mildew genera <i>Erysiphe</i> , <i>Microsphaera</i> , <i>Oidium</i> , <i>Phytoctenia</i> , <i>Todosphaera</i> , <i>Sphaerotheca</i> , and <i>Uromyces</i> .	

Look inside for complete Restrictions and Limitations and Application Instructions.

Additional Information
For additional information, call BASF's **CommServ**® at 1-800-878-3060

Conditions of Sale and Warranty

The Directions For Use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result, because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. All such risks shall be assumed by the Buyer. BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions For Use, subject to the inherent risks, referred to above. BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL BASF OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing Conditions of Sale and Warranty which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

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Specialty Products