

PM 21

352-385

10-9-98

10/7

OCT 9 1998

Ms. Mary Lou Hawkins  
E.I. DuPont de Nemours and Company  
Agricultural Products  
P.O. Box 80038  
Wilmington, DE 19880-0038

Dear Ms. Hawkins:

Subject: Benlate OD/WSP Fungicide  
EPA Reg. No. 352-385  
Your Submission of September 17, 1998

The amendment referred to above, submitted in connection with registration under section 3(c)(7)(A) for the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) is acceptable provided that you:

1. Revise the directions for determining the number of soluble packets to use to treat various acreages to include only rates which are appropriate to this label. The 3 and 4 oz/acre rates are not used on this label and must be changed to rates suitable for this product. Also, add a statement such as "Round up only if the resulting rate will not exceed the maximum limit permitted for that crop".

2. Submit one (1) copy of your final printed labeling before you release the label for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release of the product for shipment bearing the amended labeling constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely yours,

*Mary L. Waller*

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

Enclosure

7505C:C.Grable:cg:10/6/98

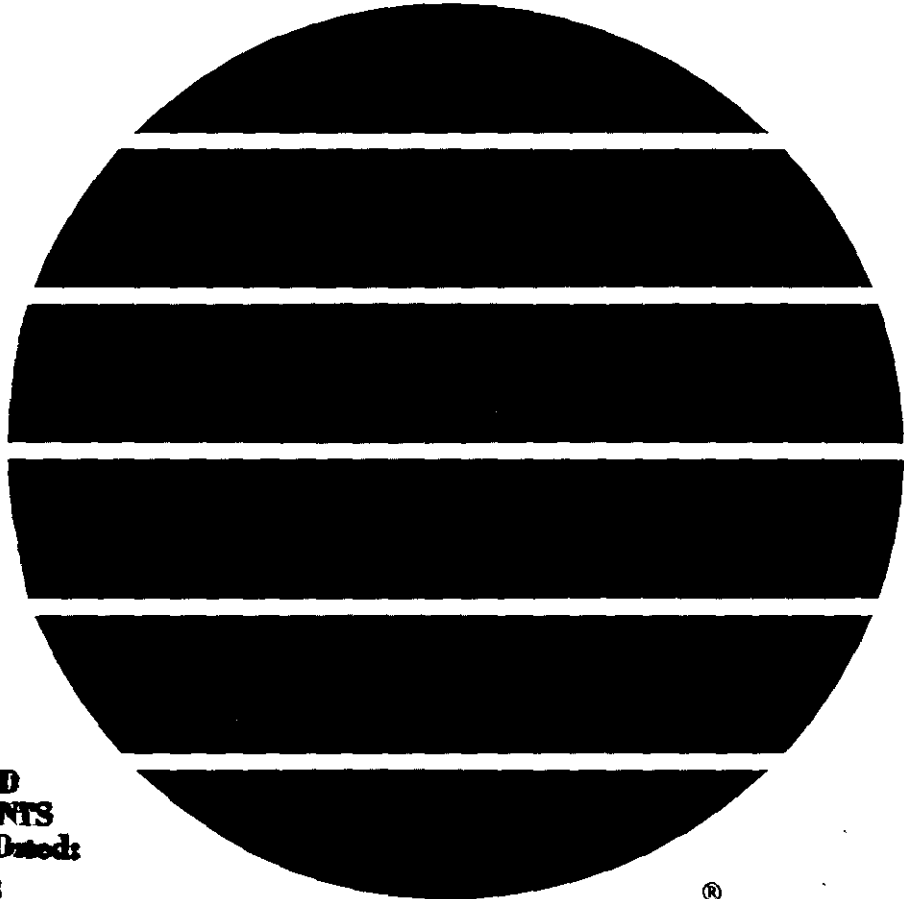
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# Benlate® OD/WSP

fungicide

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**ACCEPTED**  
with **COMMENTS**  
In EPA Letter Dated:  
OCT 9 1998

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No. 352-385

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“..... *A Growing Partnership With Nature*”



# Benlate® OD/WSP

## fungicide

**For Sale and Use in States Other Than California**

### Wettable Powder in Water Soluble Film

Active Ingredient	By Weight
Benomyl	
Methyl 1-(butylcarbamoyl)-2-benzimidazolecarbamate	50%
Inert Ingredients	50%
TOTAL	100%

EPA Reg. No. 352-385

### KEEP OUT OF REACH OF CHILDREN

## CAUTION

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION! MAY IRRITATE EYES, NOSE, THROAT AND SKIN.**

Avoid breathing dust or spray mist. Avoid contact with skin, eyes, and clothing.

This product may cause a temporary allergic skin reaction in a few susceptible persons. This condition should be treated as an allergic dermatitis. There is no evidence of after effects or permanent injury.

**First Aid:** In case of contact, flush skin or eyes with plenty of water; for eyes, get medical attention.

**For medical emergencies involving this product, call toll free 1-800-441-3637.**

### PRECAUTIONARY STATEMENTS

(continued in next column)

### PRECAUTIONARY STATEMENTS (continued) PERSONAL PROTECTIVE EQUIPMENT

**Handlers who may be exposed to the dilute through application or other tasks must wear:**

Long-sleeved shirt and long pants.

Waterproof gloves and chemical-resistant footwear plus socks.

Chemical-resistant apron when cleaning equipment.

**Handlers who may be exposed to the concentrate through mixing, loading, application, or other tasks must wear:**

Long-sleeved shirt and long pants.

Waterproof gloves and chemical-resistant footwear plus socks.

Chemical-resistant apron when mixing or loading.

For exposures in enclosed areas, a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

For exposures outdoors, a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C).

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

### ENGINEERING CONTROL STATEMENTS

Human flaggers must be in enclosed cabs.

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 part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 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. 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

This pesticide is toxic to fish. For terrestrial uses, do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark, except for the registered aquatic use on rice. Do not apply where runoff is likely to occur. Drift and runoff from treated areas may be hazardous to fish in adjacent areas. Do not contaminate water when disposing of equipment washwaters. Do not apply when weather conditions favor drift from areas treated.

For registered aquatic uses: Aquatic organisms may be killed at recommended application rates.

### PHYSICAL OR CHEMICAL HAZARDS

Keep away from fire or sparks.

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## 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 24 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:

- Coveralls.
- Waterproof gloves.
- Chemical-resistant footwear plus socks.

BENLATE OD/wsp should be used only in accordance with the recommendations on this label, or the recommendations in separate DuPont publications available through local dealers.

DuPont will not be responsible for losses or damages resulting from use of this product in any manner not specifically recommended by DuPont. User assumes all risk associated with such nonrecommended use.

Do not formulate this product into other end-use products without written permission from DuPont.

### GENERAL INFORMATION

BENLATE OD/wsp is a systemic fungicide recommended for the control of many important plant diseases. It is a 50% active ingredient wettable powder formulation premeasured in 1 lb (16 oz) and 2 lb (32 oz) polyvinyl alcohol (PVA) water soluble packets.

Apply as a spray with ground equipment, except as otherwise directed in the "Crop/Rate Table", using sufficient water to obtain thorough coverage of plants. Under severe disease conditions, use the higher treatment rate and shorter interval for repeat applications as specified on this label.

### Preparation of Spray Mixture

Add the required amount of BENLATE OD/wsp to the necessary volume of water in the spray tank; continuously agitate the tank by hydraulic or mechanical means to keep the material in suspension. Do not tank mix BENLATE OD/wsp with lime or alkaline pesticides such as Bordeaux mixture or lime sulfur. Do not hold slurries for more than 12 hours.

**CAREFULLY OPEN ENVELOPE AND IMMEDIATELY DROP INNER PACKET(S) INTO SPRAY TANK. DO NOT ATTEMPT TO USE PARTIAL SOLUBLE PACKETS.**

Tank mixtures with liquid fertilizer or solutions containing Boron will affect solubility of the water soluble film. When using fertilizers or Boron containing solutions follow these procedures:

1. Add the correct amount of BENLATE OD/wsp to clean water.
2. Be sure the soluble packets are completely dissolved.
3. Introduce the fertilizer or Boron containing solutions last.

#### Note:

Do not tank mix or alternate BENLATE OD/wsp with benzimidazole or thiophanate products such as Mertect<sup>1</sup> or Topsin<sup>2</sup>.

### Number of BENLATE OD/wsp Soluble Packets To Use To Treat Various Acreages

To determine the number of soluble packets of BENLATE OD/wsp for any acreage, select the use rate (oz/A) and multiply it by the number of acres to be treated, then divide this by 16 if using the one pound packets or by 32 if using the two pound packets. The result is the number of soluble packets required to treat the given acreage. **DO NOT attempt to use partial Soluble Packets. Round up or down as indicated in the following examples.**

#### For example:

To treat 6 acres at the 8 oz rate:

$$\frac{8 \text{ oz/A} \times 6 \text{ A}}{16 \text{ oz/packet}} = 3^* \text{ or 3 one pound packets}$$

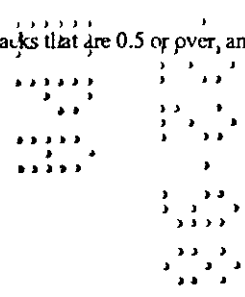
To treat 10 acres at the 3 oz rate:

$$\frac{3 \text{ oz/A} \times 10 \text{ A}}{16 \text{ oz/packet}} = 1.875^* \text{ or 2 one pound packets}$$

To treat 35 acres at the 4 oz rate:

$$\frac{4 \text{ oz/A} \times 35 \text{ A}}{32 \text{ oz/packet}} = 4.375^* \text{ or 4 two pound packets}$$

\* Round up for fractions of soluble packs that are 0.5 or over, and down when less than 0.5.



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CROP/RATE TABLE

Crop	Disease	Limit /Acre /Crop	Rate, Minimum Gallonage	Application Timing	Last Application (days to harvest)
Rice	Sheath Blight ( <i>Rhizoctonia</i> )	64 oz (4 lb)	16 to 32 oz/A 3 gal/A air	Scout at 1/2" internodes, spray at 5 to 15% infection. Repeat 10 to 14 days later.	21
	Blast ( <i>Pyricularia</i> )			Apply at late boot stage (just prior to head emergence). Repeat 7 to 10 days later or at 90% head emergence from boot.	
	Stem Rot ( <i>Sclerotium</i> ) Narrow Brown Leaf Spot ( <i>Cercospora</i> ) Leaf Smut ( <i>Entyloma</i> ) Sheath Rot ( <i>Acrocyndrium</i> )			Apply between 1/2 to 3/4" internodes and late booting. Repeat 14 days later.	
	<ul style="list-style-type: none"> <li>To ensure adequate coverage when disease is severe, use higher treatment rates, higher gallonage, and make additional BENLATE OD/WSP applications.</li> <li>The most effective way to control Blast is to use BENLATE OD/WSP in a preventive treatment program. Visual symptoms of Blast may not appear on rice until 4 to 7 days after infection occurs. Field scouting is highly recommended.</li> <li>Do not apply to fields where crayfish or catfish are farmed.</li> <li>Do not drain treated water into fields where crayfish or catfish are farmed.</li> <li>Do not use treated water to irrigate other crops.</li> <li>Do not apply to stubble rice.</li> <li>BENLATE OD/WSP is toxic to fish. Keep out of lakes, streams, or ponds. Do not apply when weather conditions favor drift from treated areas.</li> </ul>				
Soybeans (seed or food crop)	Diaporthe Pod and Stem Blight Anthracnose ( <i>Glomerella</i> ) Septoria Brown Spot Frogeye Leaf Spot ( <i>Cercospora</i> ) Purple Seed Stain	16 oz (1 lb)	8 to 16 oz/A 5 gal/A air	Apply at early pod set (pods 1/8 to 1/4" long at 1 of 4 main stem upper nodes). Repeat 14 to 21 days later (as needed).	35
	Aerial Blight ( <i>Rhizoctonia</i> )		16 oz/A 5 gal/A air	Apply when disease threatens.	
	<ul style="list-style-type: none"> <li>Do not graze livestock in treated areas or feed livestock treated vines or hay.</li> </ul>				

## CHEMIGATION

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

## SPRAY DRIFT MANAGEMENT

The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

**AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.**

### IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS!** See **Wind, Temperature and Humidity, and Temperature Inversions** sections of this label.

### Controlling Droplet Size - General Techniques

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. **WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.**
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

### Controlling Droplet Size - Aircraft

- **Number of Nozzles** - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- **Nozzle Type** - Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- **Boom Length** - The boom length should not exceed 3/4 of the wing or rotor length - longer booms increase drift potential.
- **Application Height** - Application more than 10 ft above the canopy increases the potential for spray drift.

## BOOM HEIGHT

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

## WIND

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. **AVOID GUSTY AND WINDLESS CONDITIONS.**

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they effect spray drift.

## TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

## TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

## SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

## AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring. **Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

## RESISTANCE MANAGEMENT

If treatment with BENLATE OD/wsp is not effective, a benomyl-resistant strain of the fungus may be present! If this is the case, neither BENLATE OD/wsp nor any other benzimidazole- or thiophanate-type fungicide will effectively control that disease. Consider prompt use of other types of suitable fungicides.

Repeated, exclusive use of BENLATE OD/wsp may lead to buildup of resistant strains of fungi and loss of disease control. A spray program alternating BENLATE OD/wsp use with other fungicides may delay buildup of resistant strains. For guidance

on your particular crop and disease control situation, consult your state extension specialist or official state recommendations.

## INTEGRATED PEST MANAGEMENT

DuPont recommends the use of Integrated Pest Management (IPM) programs to control pests. This product may be used as part of an Integrated Pest Management (IPM) program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop or site systems in your area.

### STORAGE AND DISPOSAL

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

**STORAGE:** Never allow BENLATE OD/wsp to become wet during storage. This may lead to certain chemical changes which will reduce the effectiveness of BENLATE OD/wsp as a fungicide. Keep container tightly closed when not in use. Store product in original container only.

**PRODUCT DISPOSAL:** Do not contaminate water, food, or feed by disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Completely empty contents of envelope into application equipment. Then dispose of empty envelope in a sanitary landfill, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

1 Registered trademark of Merck & Company.

2 Registered trademark of Nippon Soda Company, Japan.

## LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read This Limitation of Warranty and Liability Before Buying or Using This Product. If the Terms Are Not Acceptable, Return the Product at Once, Unopened, and the Purchase Price Will Be Refunded.

It is impossible to eliminate all risks associated with the use of this product. Such risks arise from weather conditions, soil factors, off target movement, unconventional farming techniques, presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of DuPont. These risks can cause: ineffectiveness of the product; crop injury, or; injury to non-target crops or plants.

DuPont does not agree to be an insurer of these risks. **WHEN YOU BUY OR USE THIS PRODUCT, YOU AGREE TO ACCEPT THESE RISKS.**

DuPont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purpose stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions.

DUPONT MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

IN NO EVENT SHALL DUPONT OR SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. BUYER'S OR USER'S BARGAINED-FOR EXPECTATION IS CROP PROTECTION. THE EXCLUSIVE REMEDY OF THE USER OR BUYER AND THE EXCLUSIVE LIABILITY OF DUPONT OR SELLER, FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, TORT OR STRICT LIABILITY), WHETHER FROM FAILURE TO PERFORM OR INJURY TO CROPS OR OTHER PLANTS, AND RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT, OR AT THE ELECTION OF DUPONT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

DuPont or its Ag Retailer must have prompt notice of any claim so that an immediate inspection of buyer's or user's growing crops can be made. Buyer and all users shall promptly notify DuPont or a DuPont Ag Retailer of any claims, whether based on contract, negligence, strict liability, other tort or otherwise or be barred from any remedy.

This Limitation of Warranty and Liability may not be amended by any oral or written agreement.

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For product information call 1-888-6-DUPONT

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