

PLEASE NOTE

This image contains more than one label approved for this product on this date.

100-922

2/28/2001

4/9

Please read instructions on reverse before completing form.

	United States Environmental Protection Agency Washington, DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number notification
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Application for Pesticide - Section I

1. Company/Product Number 100-922	2. EPA Product Manager Cynthia Giles-Parker	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Blockade NCP 922B M2B 0800	PM# 22	
5. Name and Address of Applicant (Include ZIP Code) Novartis Crop Protection, Inc. P. O. Box 18300 Greensboro, NC 27419 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____	NOTIFICATION FEB 28 2001
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.	
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.	

Explanation: Use additional page(s) if necessary. (For Section I and Section II.)

Addition of statement to Blockade label required by the State of California.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
*Certification must be submitted		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Unit Packaging wgt. No. per container		
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Other _____ <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled					

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Lee Hubbard	Title Senior Regulatory Manager	Telephone No. (Include Area Code) 336-632-7044
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamps)
2. Signature 	3. Title Senior Regulatory Manager	
4. Typed Name Lee Hubbard	5. Date February 21, 2001	

NOTIFICATION

FEB 28 2001

PULL HERE TO OPEN 

BLOCKADE™



50WG

PLANT

ACTIVATOR

For protection against certain diseases of leafy vegetables.

Active ingredient:
 1,2,3-benzoxindiazole-7-thiocarboxylic acid-S-methyl ester
 (CAS No. 136159-64-2) * 50.0%

Other Ingredients: 50.0%

Total: 100.0%

*Aclenzolate S-methyl (ISO proposed common name)
 Blockade 50WG is a water-dispersible granule.
 Product of the United Kingdom

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-922, EPA Est. 87545-AZ-1
 NCP 922B-M2B 0800

1.0 OUNCE U.S. Standard Measure

 **NOVARTIS**

Blockade™ 50WG

DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

IMPORTANT: Read the entire **Directions for Use** and the **Conditions of Sale and Warranty** before using this product. If terms are not acceptable, return the unopened product container at once.

CONDITIONS OF SALE AND WARRANTY

The **Directions for Use** of this product reflect the opinion of experts based on laboratory and field trials. 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 the manner of use or application all of which are beyond the control of Novartis Crop Protection, Inc. or the Seller. All such risks shall be assumed by the Buyer.

Novartis 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.

Novartis makes no other express or implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall Novartis or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product. Novartis 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 Novartis.

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:

- Coveralls
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Shoes plus socks

GENERAL INFORMATION

Blockade 50WG is a selective, systemic compound used for the control of downy mildew of leafy vegetables. Blockade 50WG is an inducer of host plant resistance. Blockade 50WG exhibits an unique mode of action which mimics the natural systemic activated resistance (SAR) response found in most plant species. Blockade 50WG has no direct activity against target pathogens.

For best performance, always follow these directions:

- Blockade 50WG should be applied to plant foliage preventively, before disease is observed in the field.
- Blockade 50WG moves systemically within the plant; however uniform spray coverage is essential for best performance. Apply Blockade 50WG in sufficient water to ensure uniform coverage (see specific water volumes for each crop in directions for use tables).
- A Blockade application mimics the SAR response in plants. Maximum disease control is normally obtained 4 days after a Blockade application.

Blockade 50WG provides protection against certain diseases in the crops listed on this label. Blockade provides sufficient protection to reduce disease levels but should be tank mixed with other registered products with curative activity if disease is present at the time of application, to ensure adequate disease control or to broaden the spectrum of disease control.

Blockade™ 50WG

Resistance Management

Blockade 50WG exhibits a mode of action unique from currently available fungicides and bactericides. Since Blockade 50WG has no direct activity on plant pathogens, the likelihood of pathogen development of insensitivity is low. However, plant pathogens are known to develop tolerance to host plant resistance and to products used repeatedly for control. Because insensitivity development cannot be fully predicted, the use of this product should conform to sensitivity management strategies established for the crop and use area. Such strategies may include rotating and/or tank mixing with products with different modes of action as well as the use of good cultural practices. Consult your local pest control advisor or extension office for details. If insensitivity to this product develops in your area, this product or other products with a similar mode of action may not provide adequate control. If you experience difficulty with control, and insensitivity is a likely cause, consult your local Novartis Crop Protection representative, local agricultural extension office, or pest control advisor for the best alternative method of control. Novartis encourages responsible product stewardship to ensure effective long-term disease control.

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, AND/OR ILLEGAL RESIDUES.

Spray Equipment

Thorough coverage is necessary to provide maximum disease control. Applications using sufficient water volume to provide thorough and uniform coverage generally provide the most effective disease control.

To avoid spray drift, do not apply when conditions favor drift beyond the target area. Avoid spray overlap, as crop injury or illegal residues may occur.

Equip sprayers with nozzles that provide accurate and uniform application. Be certain that nozzles are the same size and uniformly spaced across the boom. Always calibrate sprayer before use.

Use a pump with capacity to: (1) maintain adequate psi at nozzles, and (2) provide sufficient agitation in the tank to keep mixture in uniform suspension – this requires recirculation of 10% of tank volume per minute. Use a jet agitator or liquid sparge tube for agitation. Do not air sparge.

Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on suction side of pump should be 16-mesh or coarser. Do not place a screen in the recirculation line. Use 50-mesh or coarser screens between the pump and boom, and where required, at nozzles. Check nozzle manufacturer's recommendations.

For more information on spray equipment and calibration, consult sprayer equipment manufacturers and state recommendations. For specific local directions and spray schedules, consult the current state agricultural extension service recommendations.

Mixing Procedures

Prepare no more spray mixture than is needed for the immediate spray operation. Thoroughly clean spray equipment before using this product to prevent possible crop injury, mixing or nozzle clogging problems from spray tank contamination. Vigorous agitation is necessary for proper dispersal of the product. Maintain maximum agitation throughout the spraying operation. Do not let the spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

Blockade 50WG Alone: Add 1/2 of the required amount of water to the mix tank. With the agitator running, add the Blockade 50WG to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the Blockade 50WG has completely dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

Blockade 50WG + Tank Mixtures: Blockade 50WG is compatible with most insecticide and fungicide products. However, the physical compatibility of Blockade 50WG with tank mix partners should be tested before use. To determine the physical compatibility of Blockade 50WG with other products, use a jar test described below.

Using a quart jar, add the proportionate amounts of the products to 1 qt. of water. Add wettable powders and water-dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been demonstrated, use the same procedure for adding required ingredients to the spray tank.

Add 1/2 of the required amount of water to the mix tank. Start the agitator running before adding any tank mix partners. In general, tank mix partners should be added in this order: products packaged in water-soluble packaging, wettable powders, wettable granules (dry flowables) such as Blockade 50WG, liquid flowables, liquids and emulsifiable concentrates. Always allow each tank mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all of the mixture has been applied.

Note: When using Blockade 50WG in tank mixtures, all products in water-soluble packaging should be added to the tank before any other tank mix partner, including Blockade 50WG. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank.

If using Blockade 50WG in a tank mixture, observe all directions for use which appear on the tank mix product label. No label dosage rate should be exceeded, and the most restrictive label precautions and limitations should be followed. This product should not be mixed with any product which prohibits such mixing. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are registered.

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

Blockade™ 50WG

RECOMMENDED FOLIAR APPLICATIONS

Crop	Pest	Rate Per Application	Remarks
Head Lettuce	Downy Mildew	Foliar application: 3/4-1 oz./A	Apply preventively on a 7 to 10-day schedule. Begin applications after thinning. Do not make more than 4 applications per crop.

Apply in sufficient water to ensure adequate coverage using a minimum of 20 gals. of water per acre. If downy mildew is present in the production area, the first application should be made in tank mixture with another registered downy mildew fungicide; once activated, the supplemental applications of Blockade should be applied alone. Banded applications can be made early when plants are small (7-inch proportional band) as long as coverage is adequate.

Notes: (1) Do not apply prior to thinning or within 5 days of transplanting. (2) Do not apply Blockade to plants that are stressed due to drought, excessive moisture, cold weather, or herbicide injury, etc. (3) Allow 7 days between the last application and harvest. (4) Do not apply by air. (5) Do not apply more than 4 oz. of Blockade per acre per season.

For use in California only, in the following counties: Santa Clara, Monterey, San Luis Obispo, Santa Barbara, Ventura, Los Angeles, San Diego, Santa Cruz, San Benito, San Mateo.

Crop	Pest	Rate Per Application	Remarks
Romaine Lettuce (green types only)	Downy Mildew	Foliar application: 3/4-1 oz./A	Apply preventively on a 7 to 10-day schedule. Begin applications after thinning. Do not make more than 2 applications per crop.

Apply in sufficient water to ensure adequate coverage using a minimum of 20 gals. of water per acre. If downy mildew is present in the production area, the first application should be made in tank mixture with another registered downy mildew fungicide; once activated, the supplemental applications of Blockade should be applied alone. Banded applications can be made early when plants are small (7-inch proportional band) as long as coverage is adequate.

Notes: (1) Do not apply prior to thinning or within 5 days of transplanting. (2) Do not apply Blockade to plants that are stressed due to drought, excessive moisture, cold weather, or herbicide injury, etc. (3) Allow 7 days between the last application and harvest. (4) Do not apply by air. (5) Do not apply more than 2 oz. of Blockade per acre per season.

For use in California only, in the following counties: Santa Clara, Monterey, San Luis Obispo, Santa Barbara, Ventura, Los Angeles, San Diego, Santa Cruz, San Benito, San Mateo.

Crop	Pest	Rate Per Application	Remarks
Spinach	Downy Mildew White Rust	Foliar application: 3/4 oz./A	Apply preventively on a 7 to 10-day schedule. Begin applications at first to second true leaf or after thinning. Do not make more than 3 consecutive applications per crop.

Apply in sufficient water to ensure adequate coverage using a minimum of 20 gals. of water per acre. Banded applications can be made early when plants are small (proportional band) as long as coverage is adequate. Blockade may be used following the at-planting Ridomil Gold® EC or GR application for control of downy mildew or white rust.

Notes: (1) Do not apply Blockade to young seedlings. (2) Do not apply Blockade to plants that are stressed due to drought, excessive moisture, cold weather, or herbicide injury, etc. (3) Allow 7 days between the last application and harvest. (4) Do not apply by air. (5) Do not apply more than 2 1/4 oz. of Blockade per acre per season.

For use in California only, in the following counties: Santa Clara, Monterey, San Luis Obispo, Santa Barbara, Ventura, Los Angeles, San Diego, Santa Cruz, San Benito, San Mateo.

Rotational (Plantback) Restriction

Do not plant any crop within 30 days after the last application of Blockade 50WG, except for the crops listed below.

- Tobacco,
- leafy vegetables,
- and fruiting vegetables.

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Blockade™ 50WG

STORAGE AND DISPOSAL

Store in a cool, dry place.

Pesticide Disposal

Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment. Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of federal law. If these wastes cannot be used according to label instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

Container Disposal

Completely empty bag into application equipment. Dispose of empty bag in a sanitary landfill, by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling.

FIRST AID STATEMENTS

If in eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lens, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
Note to Physician:	If ingested, induce emesis or lavage stomach. Treat symptomatically.
Hotline	In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

Personal Protective Equipment

Some of the materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Shoes plus socks

The State of California believes prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Engineering Control Statements

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 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.

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Blockade™ 50WG

Environmental Hazards

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash water or rinsate.

Physical or Chemical Hazards

Do not use, pour, spill, or store near heat or open flame.

Blockade™ and Ridomil Gold® trademarks of Novartis
U.S. Patent No. 5,153,200

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Product of the United Kingdom

Novartis Crop Protection, Inc.
Greensboro, North Carolina 27419
www.cp.us.novartis.com

NCP 922B-M2B 0800

Blockade™ 50WG

BLOCKADE™

50WG

PLANT ACTIVATOR

For protection against certain diseases of leafy vegetables

Active ingredient:

1,2,3-benzothiadiazole-7-thiocarboxylic acid-S-methyl-ester (CAS No. 135158-54-2)* 50.0%

Other ingredients: 50.0%

Total: 100.0%

*Acibenzolar-S-methyl (ISO proposed common name)

Blockade 50WG is a water-dispersible granule.

See directions for use in attached booklet.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

EPA Reg. No. 100-922

EPA Est. 67545-AZ-1

Blockade™ trademark of Novartis

Novartis Crop Protection, Inc. Greensboro, NC 27419

U.S. Patent No. 5,153,200

www.cp.us.novartis.com

©2000 Novartis

NCP 922B-M2B 0800

1.0 OUNCE U.S. Standard Measure



Blockade™ 50WG

KEEP OUT OF REACH OF CHILDREN. CAUTION

Precautionary Statements

Hazards to Humans and Domestic Animals

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling.

First Aid Statements

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lens, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If on skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Note to Physician: If ingested, induce emesis or lavage stomach. Treat symptomatically.

Hotline: In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

Environmental Hazards

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash water or rinsate.

Physical or Chemical Hazards

Do not use, pour, spill, or store near heat or open flame.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

Storage

Store in a cool, dry place.

Chemigation

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

©2000 Novartis

Product of the United Kingdom

Novartis Crop Protection, Inc.
Greensboro, NC 27419
www.cp.us.novartis.com



NEXT

LABEL

100-922

2/28/2001

1/9

Please read instructions on reverse before completing form.

	United States Environmental Protection Agency Washington, DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number notification
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Application for Pesticide - Section I

1. Company/Product Number 100-922	2. EPA Product Manager Cynthia Giles-Parker	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Actigard NCP 922A M2C 0101	PM# 22	
5. Name and Address of Applicant (Include ZIP Code) Novartis Crop Protection, Inc. P. O. Box 18300 Greensboro, NC 27419 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____	NOTIFICATION FEB 28 2001
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.	
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.	

Explanation: Use additional page(s) if necessary. (For Section I and Section II.)

Addition of statement to Actigard label required by the State of California.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
*Certification must be submitted		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Unit Packaging wgt. No. per container		
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Other _____ <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled					

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Lee Hubbard	Title Senior Regulatory Manager	Telephone No. (include Area Code) 336-632-7034
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamper)
2. Signature 	3. Title Senior Regulatory Manager	
4. Typed Name Lee Hubbard	5. Date February 21, 2001	

NOTIFICATION

FEB 28 2001

PULL HERE TO OPEN 

ACTIGARDTM

50WG

PLANT ACTIVATOR

For protection against certain diseases of leafy vegetables, tomatoes, and tobacco

Active Ingredient:
1,2,3-benzothiadiazole-7-thiocarboxylic acid-S-methyl-ester
(CAS No. 135158-54-2)* 50.0%

Other Ingredients: 50.0%

Total: 100.0%

*Acibenzolar-S-methyl (ISO proposed common name)
Actigard 50WG is a water-dispersible granule.
Product of the United Kingdom

KEEP OUT OF REACH OF CHILDREN.
CAUTION
See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-922 EPA Est. 67545-AZ-1
NCP 922A-M2C 0101
7.5 OUNCES U.S. Standard Measure


NOVARTIS

Actigard™ 50WG

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Novartis makes no other express or implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall Novartis or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product. Novartis 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 Novartis.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

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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
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Shoes plus socks

GENERAL INFORMATION

Actigard 50WG is a selective, systemic compound used for the control of downy mildew of leafy vegetables, bacterial leaf spots of tomatoes, and blue mold of tobacco. Actigard 50WG is an inducer of host plant resistance. Actigard 50WG exhibits a unique mode of action which mimics the natural systemic activated resistance (SAR) response found in most plant species. Actigard 50WG has no direct activity against target pathogens.

For best performance, always follow these directions:

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Actigard™ 50WG

Resistance Management

Actigard 50WG exhibits a mode of action unique from currently available fungicides and bactericides. Since Actigard 50WG has no direct activity on plant pathogens, the likelihood of pathogen development of insensitivity is low. However, plant pathogens are known to develop tolerance to host plant resistance and to products used repeatedly for control. Because insensitivity development cannot be fully predicted, the use of this product should conform to sensitivity management strategies established for the crop and use area. Such strategies may include rotating and/or tank mixing with products with different modes of action as well as the use of good cultural practices. Consult your local pest control advisor or extension office for details. If insensitivity to this product develops in your area, this product or other products with a similar mode of action may not provide adequate control. If you experience difficulty with control, and insensitivity is a likely cause, consult your local Novartis Crop Protection representative, local agricultural extension office, or pest control advisor for the best alternative method of control. Novartis encourages responsible product stewardship to ensure effective long-term disease control.

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, AND/OR ILLEGAL RESIDUES.

Spray Equipment

Thorough coverage is necessary to provide maximum disease control. Applications using sufficient water volume to provide thorough and uniform coverage generally provide the most effective disease control.

To avoid spray drift, do not apply when conditions favor drift beyond the target area. Avoid spray overlap, as crop injury or illegal residues may occur.

Equip sprayers with nozzles that provide accurate and uniform application. Be certain that nozzles are the same size and uniformly spaced across the boom. Always calibrate sprayer before use.

Use a pump with capacity to: (1) maintain adequate psi at nozzles, and (2) provide sufficient agitation in the tank to keep mixture in uniform suspension – this requires recirculation of 10% of tank volume per minute. Use a jet agitator or liquid sparge tube for agitation. Do not air sparge.

Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on suction side of pump should be 16-mesh or coarser. Do not place a screen in the recirculation line. Use 50-mesh or coarser screens between the pump and boom, and where required, at nozzles. Check nozzle manufacturer's recommendations.

For more information on spray equipment and calibration, consult sprayer equipment manufacturers and state recommendations. For specific local directions and spray schedules, consult the current state agricultural extension service recommendations.

Mixing Procedures

Prepare no more spray mixture than is needed for the immediate spray operation. Thoroughly clean spray equipment before using this product to prevent possible crop injury, mixing or nozzle clogging problems from spray tank contamination. Vigorous agitation is necessary for proper dispersal of the product. Maintain maximum agitation throughout the spraying operation. Do not let the spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

Actigard 50WG Alone: Add 1/2 of the required amount of water to the mix tank. With the agitator running, add the Actigard 50WG to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the Actigard 50WG has completely dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

Actigard 50WG + Tank Mixtures: Actigard 50WG is compatible with most insecticide and fungicide products. However, the physical compatibility of Actigard 50WG with tank mix partners should be tested before use. To determine the physical compatibility of Actigard 50WG with other products, use a jar test described below.

Using a quart jar, add the proportionate amounts of the products to 1 qt. of water. Add wettable powders and water-dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been demonstrated, use the same procedure for adding required ingredients to the spray tank.

Add 1/2 of the required amount of water to the mix tank. Start the agitator running before adding any tank mix partners. In general, tank mix partners should be added in this order: products packaged in water-soluble packaging, wettable powders, wettable granules (dry flowables) such as Actigard 50WG, liquid flowables, liquids and emulsifiable concentrates. Always allow each tank mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all of the mixture has been applied.

Note: When using Actigard 50WG in tank mixtures, all products in water-soluble packaging should be added to the tank before any other tank mix partner, including Actigard 50WG. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank.

If using Actigard 50WG in a tank mixture, observe all directions for use which appear on the tank mix product label. No label dosage rate should be exceeded, and the most restrictive label precautions and limitations should be followed. This product should not be mixed with any product which prohibits such mixing. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are registered.

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

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RECOMMENDED FOLIAR APPLICATIONS

Fruiting Vegetables

Crop	Pest	Rate Per Application	Remarks
Tomatoes	Bacterial Spot Bacterial Speck	Foliar application: 1/3-3/4 oz./A	Begin applications within one week of transplanting or emergence; apply with ground equipment only. Make up to 6 weekly, sequential applications. 3/4 oz. per 100 gals. of water (minimum of 1/3 oz./A in early season and maximum of 3/4 oz./A by end of season). See table below.

Notes: Begin season with low water volumes; as plant canopy increases, the Actigard rate should increase to ensure activity. The table below provides guidance on increasing the rate through the season (a dilute carrier volume of 100 gals. of water per acre is assumed for fully grown tomato plants).

Amount of Actigard (oz./A)	Gals./A	Weeks following transplanting
1/3	30-50	0-2
1/2	60-70	3-4
3/4	70-100	5-8

Notes: (1) Use the higher rate over time, even if volume does not increase. If gallonage at any particular application is higher than in this example, increase Actigard accordingly, i.e., keep the concentration the same but do not exceed 3/4 oz./100 gals. concentration. (2) Allow 14 days between the last application and harvest. (3) Do not apply more than 6 times per crop per season. (4) Do not apply on less than 7-day interval. (5) Do not apply more than 4 oz. of Actigard per acre per season.

Precaution: Under certain conditions, this product, when used on tomatoes, may lead to reductions in yield. Novartis recommends that the user and/or grower test this product in order to determine its suitability for its intended use in tomatoes. Novartis makes this product available to the user and/or grower solely to the extent that the benefit and utility, in the sole opinion of the user and/or grower, outweigh the extent of potential reductions in yield of tomatoes following use of Actigard. The decision to use or not use Actigard in tomatoes must be made by each individual user and/or grower on the basis of possible reductions in yield, the severity of disease incidence, the cost of alternate disease control options, if any, and other factors.

Leafy Vegetables

Crop	Pest	Rate Per Application	Remarks
Spinach	Downy Mildew White Rust	Foliar application: 3/4 oz./A	Apply preventively on a 7 to 10-day schedule. Begin applications at first to second true leaf or after thinning. Do not make more than 3 consecutive applications per crop.

Apply in sufficient water to ensure adequate coverage using a minimum of 20 gals. of water per acre. Banded applications can be made early when plants are small (proportional band) as long as coverage is adequate. Actigard may be used following the at-planting Ridomil Gold® EC or GR application for control of downy mildew or white rust.

Notes: (1) Do not apply Actigard to young seedlings. (2) Do not apply Actigard to plants that are stressed due to drought, excessive moisture, cold weather, or herbicide injury, etc. (3) Allow 7 days between the last application and harvest. (4) Do not apply by air. (5) Do not apply more than 2 1/4 oz. of Actigard per acre per season.

For use in Texas only, in the following counties:

TX: Atascosa, Dimmitt, Frio, Kinney, LaSalle, Medina, Uvalde, Zavala, Maverick, Hidalgo, Cameron, Willacy, Starr, Webb, Zapata.

Tobacco

Crop	Pest	Rate Per Application	Remarks
Tobacco (Flue-cured, Burley, Dark only)	Blue Mold	Foliar application: 1/2 oz./A	Begin applications after plants reach a height of 18 inches. Apply on a preventive schedule when blue mold threatens. Another registered blue mold product should be used prior to 18 inches for early season control and after the final application if conditions are conducive for disease. Make up to 2 applications on a 10-day schedule.

Apply in a minimum of 20 gals. of water per acre.

Applications of Actigard may result in leaf yellowing. This cosmetic yellowing normally disappears after the final application.

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Notes: (1) Do not apply Actigard to plants that are stressed due to drought, excessive moisture, cold weather, or herbicide injury, etc. (2) Do not apply Actigard to tobacco in plant beds or in greenhouses/plant houses. (3) Do not apply Actigard with foliar fertilizers and crop oils. (4) Avoid spray overlap because injury may result. (5) Do not apply by air. (6) Do not apply more than 1 oz. of Actigard per acre per season.

Allow 21 days between the last application and harvest.

Rotational (Plantback) Restriction

Do not plant any crop within 30 days after the last application of Actigard 50WG, except for the crops listed below.

- Tobacco,
- leafy vegetables,
- and fruiting vegetables.

STORAGE AND DISPOSAL

Store in a cool, dry place.

Pesticide Disposal

Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment. Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of federal law. If these wastes cannot be used according to label instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

Container Disposal

Completely empty bag into application equipment. Dispose of empty bag in a sanitary landfill, by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling.

FIRST AID STATEMENTS

If in eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lens, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
Note to Physician:	If ingested, induce emesis or lavage stomach. Treat symptomatically.
Hotline	In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

Personal Protective Equipment

Some of the materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Shoes plus socks

The State of California believes prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Engineering Control Statements

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

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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 pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash water or rinsate.

Physical or Chemical Hazards

Do not use, pour, spill, or store near heat or open flame.

Actigard™ and Ridomil Gold® trademarks of Novartis

U.S. Patent No. 5,153,200

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Novartis Crop Protection, Inc.

Greensboro, North Carolina 27419

www.cp.us.novartis.com

NCP 922A-M2C 0101

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ACTIGARD™ 50WG

PLANT ACTIVATOR

For protection against certain diseases of leafy vegetables, tomatoes, and tobacco

Active Ingredient:
1,2,3-benzothiadiazole-7-thiocarboxylic acid-S-methyl-ester (CAS No. 135158-54-2)* 50.0%

Other Ingredients: 50.0%

Total: 100.0%

*Acibenzolar-S-methyl (ISO proposed common name)
Actigard 50WG is a water-dispersible granule.
See directions for use in attached booklet.

AGRICULTURAL USE REQUIREMENTS
Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

EPA Reg. No. 100-922 EPA Est. 67545-AZ-1
Actigard™ trademark Novartis Crop Protection, Inc.
of Novartis Greensboro, NC 27419
U.S. Patent No. 5,153,200 www.cp.us.novartis.com
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7.5 OUNCES U.S. Standard Measure



**KEEP OUT OF
REACH OF
CHILDREN.
CAUTION**

**Precautionary
Statements**

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Storage

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Chemigation

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