

PM 21

100-813

4/10/98

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg. Number:

100-813

Date of Issuance:

April 10, 1998

NOTICE OF PESTICIDE:

Registration
 Reregistration

(under FIFRA, as amended)

Term of Issuance:

Conditional Registration, Expires December 31, 1998

Name of Pesticide Product:

Vanguard WP Fungicide

Name and Address of Registrant (include ZIP Code):

Novartis Crop Protection, Inc.
P.O. Box 18300
Greensboro, NC 27419-8300

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(C) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.
2. Make the following label changes before you release the product for shipment:

A. Revise the EPA Registration Number to read, "EPA Reg. No. 100-813".

Signature of Approving Official:

Mary L. Waller

Date:

Mary L. Waller, Acting PM 21 CONCURRENCES

SYMBOL	Fungicide Branch	7505C				
SURNAME	Registration Division (7505C)	Ellison				
DATE		4/10/98				

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B. Revise the label per the agreement with PMRA, i.e., delete all references to aerial application, add drift precautions, increase the spray gallonage per acre to a minimum of 100, and increase the preharvest interval to 2 days for fruit brown rot on stone fruit.

C. The "Note" under pomefruit which recommends use of a tank mixture only on pears is confusing. It is suggested that this statement be incorporated into the application timing column indicating that Vanguard alone should be used for apples and crabapples only.

D. Under "Notes" for pome fruit, limit the total amount of Vanguard WP applied per acre per crop per season to 22 oz.

E. Revise chemical name in ingredient statement to "Cyprodinil: 4-cyclopropyl-6-methyl-N-phenyl-pyrimidinamine" to match the nomenclature used by PMRA and information contained in the Federal Register Notice.

F. The statement of practical treatment for "If on Skin:" must be revised to read "Wash with plenty of soap and water. Get medical attention."

G. The "Note to Physician" is not required, but may be retained if desired.

3. Submit one (1) copy of the final printed labeling for the record before you release the product for shipment.

4. Submit production information (pounds or gallons produced) for this product for the fiscal year in which the technical is conditionally registered, in accordance with FIFRA sec. 29. The fiscal year begins October 1, and ends September 20. The production information must be submitted to the Agency no later than November 15, following the end of the preceding fiscal year. This information must be submitted to:

Registration Support Branch
Registration Division (7505C)
401 M St., S.W.
Washington, DC 20460

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

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

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Sincerely,

Mary L. Waller

Mary L. Waller
Acting PM 21
Fungicide Branch
Registration Division (7505C)

Enclosure

*Vangard WP
needs revision 4/15*

Label Master Booklet

Vangard™ WP

FUNGICIDE

For control of certain diseases in almonds, grapes, pome fruit and stone fruit.

Active Ingredient:

Cyprodinil: N-(4-cyclopropyl-6-methyl-pyrimidin-2-yl)-aniline

.....	.75%
Other Ingredients:	25%
Total:	100%

Vangard WP is a wettable powder packaged in a water-soluble bag.

EPA Reg. 100-IRG

EPA Est.

KEEP OUT OF REACH OF CHILDREN.

CAUTION

See additional precautionary statements and directions for use on outer container.

5 oz.
U.S. Standard Measure

This outer protective container contains Vangard WP in an inner water-soluble bag. Entire inner bag and contents dissolve in water. After opening outer container, immediately dump entire unopened inner bag into partially filled sprayer or mix tank. Do not handle the soluble bag or expose it to moisture, since this may cause rupturing.

NCP813 A-L1A 0298

[QUARK/VANGARD/N-VANGARD WP LMB-A] - ccg - 2/9/98

**ACCEPTED
with COMMENTS
In EPA Letter Dated
APR 10 1998**

**Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
100-813**

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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 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 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.

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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 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
- Waterproof gloves
- Shoes plus socks

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General Information

Vanguard WP is a broad spectrum fungicide for the control of certain diseases in almonds, grapes, pome fruit, and stone fruit.

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 good disease control. Applications using sufficient water volume to provide thorough and uniform coverage generally provide the most effective disease control. For ground application equipment, a minimum of 50 gals./A is recommended. For aerial application equipment, a minimum of 10 gals./A is recommended.

To avoid spray drift, do not apply when conditions favor drift beyond the target area. Avoid spray overlap, as crop injury 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. Calibrate sprayer before use.

Use a pump with capacity to: (1) maintain a minimum of 35 psi at nozzles, and (2) provide sufficient agitation in tank to keep mixture in 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 nozzles manufacturer's recommendations.

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

Mixing Procedures

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean spray equipment before using this product. 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

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previously treated area. The spray solution should be buffered to a pH of 5.0-7.0 when tank mixed with Rovral® Fungicide.

Precaution: Water-soluble bags of Vanguard WP must be dissolved completely and the product must be uniformly dispersed in the mix water before any other tank mix partner, including micronutrients or other liquid or dry fertilizers, are added to the spray solution. Boron, especially in the form of a micronutrient additive, such as Solubor®, etc., may prevent water-soluble bags from dissolving.

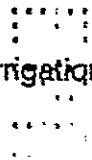
Vanguard WP Alone: Add 1/4-1/2 of the required amount of plain water to the spray or mixing tank. With the agitator running, drop the required number of **unopened soluble bags** of Vanguard WP into the tank **all at once**. Continue agitation while adding the remainder of the water and during application to maintain a uniform suspension until all of the spray solution has been applied. Begin application of the spray solution after the soluble bags have dissolved, and the material has completely dispersed into the mix water.

Vanguard WP + Tank Mixtures: Add 1/4-1/2 of the required amount of plain water to the spray or mixing tank. With the agitator running, drop the required number of unopened soluble bags of Vanguard WP, and any other products packaged in water soluble bags, into the tank **all at once**. After the water-soluble bags have dissolved and the products have dispersed uniformly into the mix water, continue to fill the tank with water. Then add the desired amount of other products recommended for tank mixture. Allow each product to fully disperse before adding any other tank mix partners. Maintain rolling agitation while adding the remainder of the water and throughout the entire mixing and spraying process to maintain a uniform suspension.

If using Vanguard WP in a tank mixture, observe all directions for use, crops/sites, use rates, dilution ratios, precautions, and limitations 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.

Aerial Application: Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. Do not apply directly to humans or animals.

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



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Crop	Disease	Rate oz/Acre	Application Timing	Notes
Almonds	Brown Rot Blossom Blight (<i>Monilinia</i> spp.)	Vanguard WP alone: 5-10 (1-2 packets per acre)	Begin applications at 5-10% bloom. If favorable conditions for disease persist, make additional applications at 50-100% bloom, and petal fall. Use the higher rate when disease conditions are severe.	Do not apply more than 30 oz. of Vanguard WP per acre per crop per season. Do not apply within 150 days of harvest.
		Vanguard WP tank mixtures: 5 (1 packet per acre)	For broad spectrum control apply Vanguard WP in tank mixture with the recommended rate of another fungicide registered for use on almonds.	
Pome Fruits: Apples, Crabapples,	Scab (<i>Venturia</i> spp.) Prebloom:	Vanguard WP alone: 5 (1 packet per acre)	Begin application at green tip and continue on a 7-10 day interval. Under severe disease pressure use the shorter interval.	Do not apply more than 30 oz. of Vanguard WP per acre per crop per season. Do not apply within 72 days of harvest.
Pome Fruits: Apples, Crabapples, Pears	Scab (<i>Venturia</i> spp.) Prebloom:	Vanguard WP tank mixtures: 3 (1 packet per 2 acres to 1 packet per acre)	For scab control utilizing multiple modes of action, apply Vanguard WP in tank mixture with the recommended rate of a protectant or systemic fungicide registered on pome fruit, making applications on a 7-10 day interval.	Apply Vanguard WP in tank mixture only for control of scab on pears.
Pome Fruits: Apples, Crabapples, Pears	Scab (<i>Venturia</i> spp.) Bloom, postbloom:	Vanguard WP tank mixtures: 3 (1 packet per 2 acres to 1 packet per acre)	Apply Vanguard WP in tank mix combination with the recommended rate of a protectant fungicide. Use of the recommended rate of an EBDC fungicide will broaden the disease control spectrum to include cedar apple rust. The addition of the recommended rate of sulfur or a sterol inhibitor (SI) fungicide to this tank mix will broaden the disease control spectrum to include powdery mildew.	

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Crop	Disease	Rate oz./Acre	Application Timing	Notes
Grapes	Botrytis Bunch Rot (<i>Botrytis</i> spp.)	Vanguard WP alone: 10 (2 packets per acre)	Begin applications of Vanguard WP at early bloom. Make an additional application at berry touch, veraison, or preharvest. Botrytis Bunch Rot is most effectively controlled by ground application, using sufficient water volume to provide thorough coverage. Thorough coverage of bunches is essential.	Do not apply more than 20 oz. of Vanguard WP per acre per crop per season. Do not apply within 7 days of harvest.
		Vanguard WP tank mixtures: 5-10 (1-2 packets per acre)	Apply Vanguard in tank mixture with the recommended rate of another fungicide registered on grapes for use against Botrytis Bunch Rot.	
Stone Fruits: Apricots Cherries, Nectarines, Peaches, Plums, Prunes	Brown Rot Blossom Blight (<i>Monilinia</i> spp.)	Vanguard alone: 5 (1 packet per acre)	Begin applications at early bloom (apricots at red bud, cherries at popcorn, peaches and nectarines at pink bud, plums and prunes at green tip). Make a second application at full bloom.	Do not apply more than 10 oz. of Vanguard WP per acre per season for blossom blight control.
		Vanguard WP tank mixtures: 5 (1 packet per acre)	Apply Vanguard WP in tank mixture with the recommended rate of another fungicide registered for stone fruit.	
	Fruit Brown Rot (<i>Monilinia</i> spp.) California only	Vanguard WP alone: 10 (2 packets per acre)	Begin applications during the period 10-14 days prior to harvest. Make a second application 7-10 days later. Under severe disease pressure, use the shorter interval.	Do not apply more than 20 oz. of Vanguard WP per acre per season for fruit brown rot control. Do not apply within 1 day of harvest.
		Vanguard WP tank mixtures: 5 (1 packet per acre)	Apply Vanguard WP in tank mixture with the recommended rate of another fungicide registered for use on stone fruit for fruit brown rot.	

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Storage and Disposal

Store in a cool, dry place. Do not store this product under wet conditions. Handle outer packaging carefully to avoid breakage of inner soluble bag.

Pesticide Disposal

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

Do not reuse outer container. Dispose of empty container in a sanitary landfill, by incineration, or, if allowed by state and local authorities, by burning. If burned, keep 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 eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing.

Statement of Practical Treatment

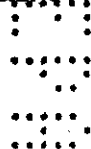
If in eyes: Flush eyes with water for 15 minutes and get medical attention if irritation persists.

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

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

Personal Protective Equipment

Applicators and other handlers must wear:



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

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

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.

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 disposing of equipment wash waters or rinsate.

Physical or Chemical Hazards

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

Vanguard™ trademark of Novartis
U.S. Patent No. 5,153,200

Rovral® trademark of Rhône-Poulenc Ag Company

Solubor® trademark of United States Borax and Chemical Corporation

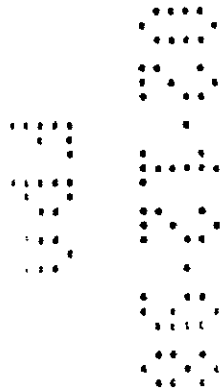
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Novartis Crop Protection, Inc.
Greensboro, North Carolina 27419

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Product ID.



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Vanguard™ 75WP

FUNGICIDE

For control of certain diseases in almonds, grapes, pome fruit and stone fruit.

Active Ingredient:

Cyprodinil: N-(4-cyclopropyl-6-methyl-pyrimidin-2-yl)-aniline

Cyprodinil: N-(4-cyclopropyl-6-methyl-pyrimidin-2-yl)-aniline	.75%
Other Ingredients:	25%
Total:	100%

Vanguard WP is a wettable powder packaged in a water-soluble bag.

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-IRG

EPA Est.

Vanguard™ trademark of Novartis
U. S. Patent No. 5,153,200

5 oz.
U.S. Standard Measure

KEEP OUT OF REACH OF CHILDREN.

CAUTION

Precautionary Statements

Hazards to Humans and Domestic Animals

Causes eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing.

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Statement of Practical Treatment

If in eyes: Flush eyes with water for 15 minutes and get medical attention if irritation persists.

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

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

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 disposing of equipment wash waters or rinsate.

Physical or Chemical Hazards

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

For minor spills, leaks, etc., follow 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. Do not store this product under wet conditions. Handle outer packaging carefully to avoid breakage of inner soluble bag.

Chemigation

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

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Greensboro, North Carolina 27419

NCP813 A-L1A 0198

Product ID.

[QUARK/VANGARD/N-VANGARD WP LMB-A] - ccg - 2/9/98