

CYPRODINIL GROUP 9 FUNGICIDE

PULL HERE TO OPEN ►

 **Vanguard[®]WG**

syngenta[®]

Fungicide

Active Ingredient:

Cyprodinil:

4-cyclopropyl-6-methyl-*N*-
phenyl-pyrimidinamine* 75.0%

Other Ingredients: 25.0%

Total: 100.0%

*CAS No. 121552-61-2

Vanguard WG is a water-dispersible granule
containing 75% cyprodinil.

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

See additional precautionary statements
and directions for use inside booklet.

EPA Reg. No. 100-828

EPA Est. 67545-AZ-1

Product of Switzerland

Formulated in the USA

SCP 828A-L1W 0222

4160242

**3 pounds
2 ounces**
Net Weight



FIRST AID	
If on skin or clothing	• 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.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
NOTE TO PHYSICIAN	
If ingested, induce emesis or lavage stomach. Treat symptomatically.	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
HOTLINE NUMBER For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident) Call 1-800-888-8372	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

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PRECAUTIONARY STATEMENTS (*continued*)

Personal Protective Equipment (PPE)

All other applicators and other handlers must wear:

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

In addition, mixers and loaders for aerial and groundboom applications must wear:

- Filtering facepiece respirator (N95, R95, or P95) (e.g., a dustmask)

User Safety Requirements

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, 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:

- Remove clothing/PPE 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 and aquatic invertebrates. For terrestrial uses: 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 apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwater or rinsate.

Surface and Ground Water Advisory

This chemical may contaminate water through runoff. This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This chemical has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this chemical. A level, well maintained vegetative buffer strip between areas to which this chemical is applied and surface water features including ponds, streams, and springs will reduce the potential loading of cyprodinil from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's potential to reach aquatic sediment via runoff.

Physical or Chemical Hazards

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

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) 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 SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

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, including plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

PRODUCT INFORMATION

Vanguard WG is a broad spectrum fungicide which controls certain diseases in fruits, nuts and vegetables.

PRODUCT USE PRECAUTIONS

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

APPLICATION INFORMATION

Vangard WG has preventative and systemic properties and is labeled for the control of many important plant diseases. Vangard WG provides excellent disease control of Botrytis, several leaf spots and powdery mildews. Vangard WG is applied as a foliar spray and can be used in block, alternating spray, or tank-mix programs with other crop protection products. Make all applications according to the use directions that follow.

PRODUCT USE INSTRUCTIONS

Application: Thorough coverage is necessary to provide good disease control. Make no more spray solution than is needed for application. Avoid spray overlap, as crop injury may occur.

Adjuvants: When an adjuvant is to be used with this product, Syngenta advises the use of a Chemical Producers and Distributors Association certified adjuvant.

Efficacy: Under certain conditions conducive to extended infection periods, use another registered fungicide for additional applications if the maximum amount of Vangard WG has been used. If resistant isolates to Group 9 fungicides are present, efficacy can be reduced for certain diseases. The higher rates in the rate range and/or shorter spray intervals may be required under conditions of heavy infection pressure, with highly susceptible varieties, or when environmental conditions are conducive to disease.

Integrated Pest Management (IPM): Integrate Vangard WG into an overall disease and pest management strategy whenever the use of a fungicide is required. Follow cultural practices known to reduce disease. Consult your local agricultural authorities for additional IPM strategies established for your area. Vangard WG may be used in state agricultural extension advisory (disease forecasting) programs which direct application timing based on environmental factors favorable for disease development.

RESISTANCE MANAGEMENT

CYPRODINIL	GROUP	9	FUNGICIDE
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For resistance management, Vangard WG contains a Group 9 fungicide. Any fungal population may contain individuals naturally resistant to Vangard WG and other Group 9 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Follow appropriate resistance-management strategies.

To delay fungicide resistance, take one or more of the following steps:

- Rotate the use of Vangard WG or other Group 9 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicides from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM directions for specific crops and pathogens.
- For further information or to report suspected resistance contact Syngenta Crop Protection at 1-866-796-4368. You can also contact your university extension specialist to report resistance.

Crop Tolerance: Plant tolerance has been found to be acceptable for all crops on the label, however, not all possible tank-mix combinations have been tested under all conditions. When possible, test the combinations on a small portion of the crop to ensure that a phytotoxic response will not occur as a result of application.

Rotational Crop Restrictions

Do not plant any crop which is not registered for use with cyprodinil for a period of 30 days, unless a shorter interval is specified on the following list.

Rotational Crop	Planting Time from Last Vangard WG Application
Artichoke, Globe Beans (dried and succulent except cowpeas) Berries (bushberries 13-07B, caneberries 13-07A) Brassica, Leafy Greens (Crop Subgroup 4-16B) Brassica, Head and Stem (Crop Group 5-16) Celtuce Citrus Fruit (Crop Subgroup 10-10B) Cucurbits (Crop Group 9) Fennel, Florence, fresh leaves and stalk Herbs (fresh and dried) Kohlrabi Leafy Greens (Crop Subgroup 4-16A) Leaf Petiole Vegetables (Crop Subgroup 22B) Leaves of Root and Tuber Vegetables Onions (dry bulb, garlic, and green) Peppers Tuberous and Corm Vegetables (crop subgroup 1C) Root and Tuber Vegetables, except Sugar beet (Crop Subgroup 1B) Strawberries Tomatoes and tomatillos Watercress Crops Not Intended for Food or Feed	0 days
All Other Crops Intended for Food or Feed	30 days

Restriction: In annual crops, where multiple crops can be grown per year (double/triple cropping), do not apply more than 1.3 lb ai per acre per year to an individual plot of land.

APPLICATION AND MIXING PROCEDURES

Mixing

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 previously treated area. Buffer the spray solution to a pH of 5.0-7.0 when tank mixed with a fungicide containing Iprodione.

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

Vanguard WG + Tank Mixtures: Add 1/2 of the required amount of water to the mix tank. Start the agitator running before adding any tank-mix partners. Add tank-mix partners in this order: products packaged in water-soluble packaging, wettable powders, wettable granules (dry flowables) including Vanguard WG, 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 the mixture has been applied.

When using Vanguard WG in tank mixtures, add all products in water-soluble packaging to the tank before any other tank-mix partner, including Vanguard WG. 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.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

If using Vanguard WG 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. Do not exceed label dosage rates, and follow the most restrictive label precautions and limitations. Vanguard WG must 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.

Additives: Vanguard WG is compatible with most crop protection additives. Do not use X-77® with Vanguard WG for bloom sprays applied to stone fruits, almonds and pistachios.

Application

For best disease control, apply Vanguard WG in sufficient water to provide thorough and uniform coverage. Use minimum ground spray volumes of 50 gal/A for tree crops, 30 gal/A for vine crops, and 15 gal/A for field and vegetable crops. For aerial application, see spray volume requirements in the specific crop directions for use.

To prevent spray drift, do not apply when conditions favor drift beyond the target area. Spray overlap may cause crop injury.

For air assisted or air blast sprayers, move spray droplets into the canopy using a forced air stream. Set up the fan to deliver only enough air volume to penetrate the canopy and provide good coverage. Adjust deflectors or other aiming devices to direct spray only to the target area.

Equip sprayers with nozzles that provide accurate and uniform application. Check whirl plates and nozzle discs for wear and replace as necessary. Calibrate sprayer before use.

Use a pump with capacity to maintain the correct rated pressure for the nozzles selected. Maintain sufficient agitation to keep the spray mixture in suspension. Use a jet agitator, liquid sparge tube, or mechanical paddle for agitation. Do not air sparge.

Use screens to prevent nozzles from clogging. Use 50-mesh or coarser screens placed after the tank and before the nozzles. Check nozzle manufacturer's specifications.

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

OBSERVE THE FOLLOWING RESTRICTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS INCLUDING LAKES, RESERVOIRS, RIVERS, PERMANENT STREAMS, MARSHES OR NATURAL PONDS, ESTUARIES, AND COMMERCIAL FISH PONDS.

- Do not apply within 75 ft of bodies of water including lakes, reservoirs, rivers, permanent streams, natural ponds, marshes or estuaries.
- Shut off the sprayer when row ends.
- Do not cultivate within 10 ft of aquatic areas in order to allow a vegetative filter strip.
- Do not apply when weather conditions favor drift to aquatic areas. Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during a temperature inversion. Mist or fog may indicate the presence of an inversion in humid areas.
- For perennial crops including tree crops and grapes:
 - For all plantings within 150 ft of bodies of water as described above, spray crops from outside the planting away from the bodies of water.
 - Spray last three rows windward of aquatic areas using nozzles on one side only, with spray directed away from aquatic areas. Adjust or turn off top nozzles to prevent spray going over the tops of trees. Shut off nozzles on the side away from the grove/orchard when spraying the outside row. Shut off nozzles when turning at ends of row or passing tree gaps in the rows.

Ground Spray Restriction

- Do not apply when wind speeds exceed 15 miles per hour at the application site.

Aerial Spray Directions

Avoid applications under conditions when uniform coverage cannot be obtained or when excessive drift may occur.

Aerial Spray Restrictions

Observe the following restrictions when spraying in the vicinity of aquatic areas including lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds.

- Use only on crops where aerial applications are indicated.
- Do not apply by air within 150 ft of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds.
- Do not apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Release spray at the lowest height consistent with pest control and flight safety. Do not make applications more than 10 feet above the crop canopy.
- Do not apply when weather conditions favor drift to aquatic areas.
- Do not apply during a temperature inversion. Mist or fog may indicate the presence of an inversion in humid areas.

Aerial Spray Precautions

Observe the following precautions when spraying in the vicinity of aquatic areas including lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds.

- Use the largest droplet size consistent with good pest control.
- Formation of very small droplets may be minimized by appropriate nozzle selection, by orientating nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.
- Reduce risk of exposure to aquatic areas by avoiding applications when wind direction is toward the aquatic area.
- Low humidity and high temperatures increase the evaporation rate of spray droplets, and therefore the likelihood of increased spray drift to aquatic area. Avoid spraying during conditions of low humidity and/or high temperatures.

SPRAY DRIFT MANAGEMENT

Spray Drift Advisories

- THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.
- BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

Importance of Droplet Size

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** - Use the lowest spray pressure directed for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size – Aircraft

- **Adjust Nozzles** – Follow nozzle manufacturer's directions for setting up nozzles. To reduce fine droplets, orient nozzles parallel with the airflow in flight.

Boom Height – Ground Boom

- Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage.
- For ground equipment, the boom must remain level with the crop and have minimal bounce.

Release Height-Aircraft

- Higher release heights increase the potential for spray drift.
- When applying aerially to crops, do not release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

Shielded Sprayers

- Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

Temperature and Humidity

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

Temperature Inversions

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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. Avoid applications during temperature inversions.

Wind

Drift potential increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Boom-less Ground Applications:

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

Handheld Technology Applications:

- Take precautions to minimize spray drift.

Application Through Irrigation Systems (Chemigation)

- Use only on crops for which chemigation is specified on this label.

- Apply this product only through center pivot, solid set, hand move, or moving wheel irrigation systems. Do not apply this product through any other type of irrigation system.
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- Apply in 0.125-0.25 inches/A of water. Excessive water may reduce efficacy.
- If you have questions about calibration, contact state extension service specialists, equipment manufacturers, or other experts.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments if the need arises.

Note: Do not inject Vanguard WG at full strength or deterioration of valves and seals may occur. Use a dilution ratio of at least 10 parts water to 1 part Vanguard WG. Vanguard WG is corrosive to many seal materials. Leather seals are best. EPDM or silicone rubber seals can be used, but must be replaced once a year. Do not use Viton™, Buna-N, Neoprene, or PVC seals.

Operating Instructions

1. The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, for example a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended.

Center Pivot Irrigation Equipment

Restrictions: (1) Use only with drive systems which provide uniform water distribution. (2) Do not use end guns when chemigating Vanguard WG through center pivot systems because of non-uniform application.

- Determine the size of the area to be treated.
- Determine the time required to apply 1/8-1/2 inch of water over the area to be treated when the system and injection equipment are operated at normal pressures as directed by the equipment manufacturer. When applying Vanguard WG through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution. Run the system at 80-95% of the manufacturer's rated capacity.
- Using water, determine the injection pump output when operated at normal line pressure.
- Determine the amount of Vanguard WG required to treat the area covered by the irrigation system.
- Add the required amount of Vanguard WG and sufficient water to meet the injection time requirements to the solution tank.
- Make sure the system is fully charged with water before starting injection of the Vanguard WG solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
- Maintain constant solution tank agitation during the injection period.
- Continue to operate the system until the Vanguard WG solution has cleared the sprinkler head.

Solid Set, Hand Move, and Moving Wheel Irrigation Equipment

- Determine the acreage covered by the sprinklers.
- Fill injector solution tank with water and adjust flow rate to use the contents over a 20 to 30-minute interval. When applying Vanguard WG through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution.
- Determine the amount of Vanguard WG required to treat the area covered by the irrigation system.

- Add the required amount of Vanguard WG into the same quantity of water used to calibrate the injection period.
- Operate the system at the same pressure and time interval established during the calibration.
- Stop injection equipment after treatment is completed. Continue to operate the system until the Vanguard WG solution has cleared the last sprinkler head.

SPECIFIC INSTRUCTIONS FOR PUBLIC WATER SYSTEMS

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, discharge the water from the public water system into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, for example a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

CROP USE DIRECTIONS - TREES, NUTS AND VINES

Crop	Disease	Product Rate oz/Acre	Use Directions
Almonds	Brown rot blossom blight <i>(Monilinia spp.)</i> Suppression: Green fruit rot (Jacket rot) <i>(Botrytis cinerea)</i> Shot hole <i>(Wilsonomyces carpophilus)</i>	5-10*	Apply Vanguard WG at 5-10% bloom. Additional applications at 50-100% bloom and petal fall may be necessary. When used for control of brown rot blossom blight, Vanguard WG will provide suppression of shot hole. For broad spectrum disease control in tank mixture, apply Vanguard WG at a minimum rate of 5 oz in tank mixtures with other fungicides registered for use on almonds. For suppression of green fruit rot, apply Vanguard WG at full bloom. Disease suppression for almond diseases refers to erratic control from fair to good, or consistent control at a level below that obtained with products registered for control.

*5 oz product contains 0.24 lb ai cyprodinil/A

*10 oz product contains 0.47 lb ai cyprodinil/A

Application: Application may be made by ground or air. Good coverage is essential for good disease control. Use a minimum of 10 gallons/A spray volume by air.

Specific Use Restrictions

- 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table.
- 2) Do not apply more than 3 applications per year at the highest rate.
- 3) Minimum Application Interval: 14 days
- 4) Do not apply more than two applications by air.
- 5) Do not apply more than 30 oz/A of Vanguard WG (1.4 lb ai/A of cyprodinil) per year.
- 6) Do not apply within 60 days of harvest (60-day PHI).

Crop	Disease	Product Rate oz/Acre	Use Directions
Small Fruit Vine Climbing Subgroup 13-07F (except fuzzy kiwifruit) <u>Grapes</u> Amur river grape Hardy kiwifruit Maypop Schisandra berry And cultivars and/or hybrids of these	Botrytis bunch rot (<i>Botrytis</i> spp.) Suppression: Powdery mildew (<i>Uncinula necator</i>)	Vangard WG alone 10*	Begin applications of Vangard WG at early bloom. Make an additional application at berry touch, veraison, or preharvest using at least a 7-day spray interval. Botrytis bunch rot is most effectively controlled by ground application, using sufficient water volume to provide thorough coverage. Thorough coverage of bunches is essential. When used at 10 oz/A, Vangard WG will provide significant suppression (approximately 60% control) of powdery mildew.
		Vangard WG tank mixtures 5-10*	Apply Vangard WG in tank mixture with the label rate of another fungicide registered on grapes for control of Botrytis bunch rot.
*5 oz product contains 0.24 lb ai cyprodinil/A *10 oz product contains 0.47 lb ai cyprodinil/A			
Application: Application may be made by ground or air. Good coverage is essential for good disease control. Use a minimum of 20 gallons/A spray volume by air.			
Specific Use Restrictions 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table. 2) Do not apply more than 3 applications per year at the highest rate. 3) Minimum Application Interval: 7 days 4) Do not apply more than two applications by air. 5) Do not apply more than 30 oz/A of Vangard WG (1.4 lb ai/A of cyprodinil) per year. 6) Do not apply within 7 days of harvest (7-day PHI).			

Crop	Disease	Product Rate oz/Acre	Use Directions
Kiwi	Botrytis Fruit Rot (<i>Botrytis</i> spp.)	10*	Make 1-2 applications on a 7- to 10-day interval prior to harvest to prevent post-harvest fruit rot.
*10 oz product contains 0.47 lb ai cyprodinil/A			
Application: Application may be made by ground or air. Good coverage is essential for good disease control. Use a minimum of 20 gallons/A spray volume by air.			
Specific Use Restrictions 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table. 2) Do not apply more than 2 applications per year at the highest rate. 3) Minimum Application Interval: 7 days 4) Do not apply more than two applications per year. 5) Do not apply more than 20 oz of Vanguard WG (0.94 lb ai/A of cyprodinil) per year. 6) May be applied on the day of harvest (0-day PHI).			

Crop	Disease	Product Rate oz/Acre	Use Directions
Pistachios	Botrytis (<i>Botrytis</i> spp.) Alternaria (<i>Alternaria alternata</i>)	5.5 - 7*	Make the first application during early bloom and repeat applications at 14-day intervals if conditions remain favorable for disease development. After 2 applications, alternate with another fungicide with a different mode of action for 2 applications.
*5.5 oz product contains 0.26 lb ai cyprodinil/A *7 oz product contains 0.33 lb ai cyprodinil/A			
Application: Application may be made by ground or air. Good coverage is essential for good disease control. Use a minimum of 20 gallons/A spray volume by air.			
Specific Use Restrictions 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table. 2) Do not apply more than 4 applications per year at the highest rate. 3) Minimum Application Interval: 14 days 4) Do not apply more than two applications by air. 5) Do not apply more than 28 oz/A of Vangard WG (1.3 lb ai/A of cyprodinil) per year. 6) Do not apply within 7 days of harvest (7-day PHI).			

Crop	Disease	Product Rate oz/Acre	Use Directions
Pome Fruits** Apples Crabapples Loquat Mayhaw Pears (see tank mixture instructions) Quince And cultivars and/or hybrids of these	Prebloom Scab (<i>Venturia</i> spp.)	Vangard WG alone 5*	For pome fruits except pear, begin application at green tip and continue on a 7- to 10-day interval. Under severe disease pressure, use the shorter interval.
		Vangard WG tank mixtures 3-5*	For scab control utilizing multiple modes of action, apply Vangard WG in tank mixture with the label rate of a protectant or systemic fungicide registered on pome fruit. Make applications on a 7- to 10-day interval.
	Pink, bloom, post-bloom Scab (<i>Venturia</i> spp.)	Vangard WG tank mixtures 3-5*	Apply Vangard WG in tank mix combination with the label rate of a protectant fungicide. Use of the label rate of an EBDC fungicide will broaden the disease control spectrum to include cedar apple rust. The addition of the label rate of sulfur or a sterol inhibitor (SI) fungicide to this tank mix will broaden the disease control spectrum to include powdery mildew.
*3 oz product contains 0.14 lb ai cyprodinil/A *5 oz product contains 0.24 lb ai cyprodinil/A			
**Complete List of Pome Fruit Crops: Apple; Azarole; Crabapple; Loquat; Mayhaw; Medlar; Pear; Pear, Asian; Quince; Quince, Chinese; Quince, Japanese; Tejocote and cultivars, varieties and/or hybrids of these			
Application: Application may be made by ground or air. Good coverage is essential for good disease control. Use a minimum of 20 gallons/A spray volume by air.			
Specific Use Restrictions 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table. 2) Do not apply more than 6 applications per year at the highest rate. 3) Minimum Application Interval: 7 days 4) When applying to pears, apply Vangard WG in tank mix only. 5) Do not apply more than two applications by air. 6) Do not apply more than 30 oz/A of Vangard WG (1.4 lb ai/A of cyprodinil) per year. 7) Apply up to and on the day of harvest (0-day PHI).			

Crop	Disease	Product Rate oz/Acre	Use Directions
Stone Fruits Crop Group 12-12** Apricots Tart cherries Nectarines Peaches Plums Prunes And cultivars and/or hybrids of these	Brown rot blossom blight (<i>Monilinia</i> spp.)	5*	Begin applications at bloom stage (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. If disease pressure persists, make subsequent applications on a 7- to 10-day interval. Use Vanguard WG alone or in tank mixture with the label rate of another fungicide registered for stone fruit.
	California only Fruit brown rot (<i>Monilinia</i> spp.)	Vanguard WG alone 10*	Apply a maximum of 2 applications of Vanguard WG during the preharvest period on a 7-day interval up through 2 days prior to harvest as needed.
		Vanguard WG tank mixtures 5*	Apply Vanguard WG in tank mixture with the label rate of another fungicide registered on stone fruit for control of fruit brown rot.
*5 oz product contains 0.24 lb ai cyprodinil/A *10 oz product contains 0.47 lb ai cyprodinil/A			
**Complete List of Stone Fruit: Apricot; Apricot, Japanese; Cherry, tart; Jujube, Chinese; Nectarine; Peach; Plum; Plum, American; Plum, beach; Plum, Canada; Plum, cherry; Plum, Chickasaw; Plum, Damson; Plum, Japanese; Plum, Klamath; Plum, prune; Plumcot; Prune; Sloe; as well as other cultivars and hybrids of these			
Application: Application may be made by ground or air. Good coverage is essential for good disease control. Use a minimum of 20 gallons/A spray volume by air.			

continued...

Stone Fruits Crop Group 12-12 (continued)

Specific Use Restrictions

- 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table.
- 2) Do not apply Vanguard WG to sweet cherries.
- 3) Minimum Application Interval: 7 days
- 4) Do not apply more than two applications by air.
- 5) Do not apply more than 30 oz/A of Vanguard WG (1.4 lb ai/A of cyprodinil) per year.
- 6) Do not apply more than a maximum total of 4 applications (air plus ground) per year.
- 7) Do not apply within 2 days of harvest (2-day PHI).

Crop	Disease	Product Rate oz/Acre	Use Directions
Tropical and Subtropical, Small fruit, inedible peel subgroup 24A** Lychee Longan Spanish lime And cultivars and/or hybrids of these	Botrytis fruit rot (<i>Botrytis</i> spp.) Alternaria fruit rot (<i>Alternaria</i> spp.) Anthracnose (<i>Colletotrichum</i> spp.)	5.5 – 7*	Make the first application during early bloom and repeat on 7- to 10-day intervals if conditions remain favorable for disease development. Resistance Management: After 2 applications of Vanguard WG, alternate with another fungicide with a different mode of action for 2 applications.

*5.5 oz product contains 0.26 lb ai cyprodinil/A

*7 oz product contains 0.33 lb ai cyprodinil/A

****Complete List of Subgroup 24A Crops:** Aisen; bael fruit; Burmese grape; cat's-eyes; inga; longan; Lychee; madras-thorn; manduro; matisia; mesquite; mongongo, fruit; pawpaw, small-flower; satinleaf; Sierra Leone-tamarind; Spanish lime; velvet tamarind; wampi; white star apple; cultivars, varieties, and hybrids of these commodities.

Application Instructions: Application may be made by ground or air. Good coverage is essential for good disease control. Use a minimum of 20 gallons/A spray volume by air.

Specific Use Restrictions

- 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table.
- 2) Make no more than two applications by air.
- 3) Minimum Application Interval: 7 days
- 4) Do not apply more than 28 oz/A of Vanguard WG (1.3 lb ai/A of cyprodinil) per year.
- 5) Do not apply more than a maximum total of 4 applications (air plus ground) per year.
- 6) May be applied on the day of harvest (0-day PHI).

Crop	Disease	Product Rate oz/Acre	Use Directions
Specific Tropical Fruits Acerola Avocado Black sapote Canistel Dragon Fruit Feijoa Guava Jaboticaba Mamey sapote Mango Papaya Passionfruit Pulasan Rambutan Sapodilla Star apple Starfruit Wax jambu	Botrytis fruit rot (<i>Botrytis</i> spp.) Alternaria fruit rot (<i>Alternaria</i> spp.) Anthracnose (<i>Colletotrichum</i> spp.)	5.5 - 7*	Make the first application during early bloom and repeat on 7- to 10-day intervals if conditions remain favorable for disease development. Resistance Management: After 2 applications of Vanguard WG, alternate with another fungicide with a different mode of action for 2 applications.

*5.5 oz product contains 0.26 lb ai cyprodinil/A

*7 oz product contains 0.33 lb ai cyprodinil/A

continued...

Specific Tropical Fruits (<i>continued</i>)
Application: Application may be made by ground or air. Good coverage is essential for good disease control. Use a minimum of 20 gallons/A spray volume by air.
Specific Use Restrictions 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table. 2) Do not apply more than two applications by air. 3) Minimum Application Interval: 7 days 4) Do not apply more than 28 oz/A of Vangard WG (1.3 lb ai/A of cyprodinil) per year. 5) Do not apply more than a maximum total of 4 applications (air plus ground) per year. 6) Apply up to and on the day of harvest (0-day PHI).

CROP USE DIRECTIONS – VEGETABLES

Crop	Disease	Product Rate oz/Acre	Use Directions
Onions Bulb Vegetables Crop Group 3-07A and 3-07B Bulb Onion Chinese onion Dry bulb onion Daylily bulb Fritillaria bulb Garlic Great-headed garlic Lily bulb Pearl onion Potato onion Serpent garlic Shallot Green Onion Beltsville bunching onion Chinese chive fresh leaves Fresh chive leaves Fritillaria leaves Fresh onion Green onion Hosta elegans	Botrytis leaf blight or blast (<i>Botrytis</i> spp.) Purple blotch (<i>Alternaria porri</i>) Suppression: Neck rot (<i>Botrytis</i> spp.)	10*	Begin applications prior to or at the onset of disease and repeat applications on a 7- to 10-day interval if conditions remain favorable for disease development. For optimal effect on neck rot, apply on a 7-day schedule at the 10 oz rate. Resistance Management: After 2 applications of Vanguard WG, alternate with another fungicide with a different mode of action for 2 applications.

continued...

Crop	Disease	Product Rate oz/Acre	Use Directions
Onions Bulb Vegetables Crop Group 3-07A and 3-07B <i>(continued)</i> Green Onion <i>(continued)</i> Kurrat Lady's leek Leek Macrostem onion Shallot fresh leaves Tree tops onion Welsh onion tops Wild leek Wild onion Onions grown for seed And cultivars and/or hybrids of these	Botrytis leaf blight or blast <i>(Botrytis spp.)</i> Purple blotch <i>(Alternaria porri)</i> Suppression: Neck rot <i>(Botrytis spp.)</i>	10*	Begin applications prior to or at the onset of disease and repeat applications on a 7- to 10-day interval if conditions remain favorable for disease development. For optimal effect on neck rot, apply on a 7-day schedule at the 10 oz rate. Resistance Management: After 2 applications of Vanguard WG, alternate with another fungicide with a different mode of action for 2 applications.
*10 oz product contains 0.47 lb ai cyprodinil/A			
Application: Application may be made by ground, air, or chemigation. Good coverage is essential for good disease control. Use a minimum of 5 gallons/A spray volume by air. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.			

Specific Use Restrictions

- 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table.
- 2) Do not apply more than 2 applications per year at the highest rate.
- 3) Minimum Application Interval: 7 days
- 4) Do not apply more than two applications by air.
- 5) Do not apply more than 28 oz/A of Vanguard WG (1.3 lb ai/A of cyprodinil) per year.
- 6) Do not apply within 7 days of harvest (7-day PHI).

STORAGE AND DISPOSAL

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

Pesticide Storage

Keep this product in its tightly closed original container, when not in use. Store in a cool, dry (preferably locked) area that is inaccessible to children and animals.

Pesticide Disposal

Pesticide wastes may be toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance.

Container Handling (less than or equal to 50 pounds)

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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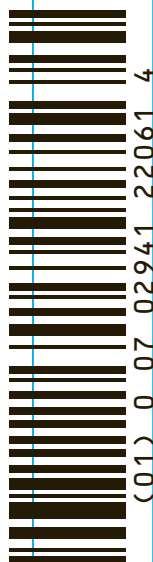
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For non-emergency (e.g., current product information), call
Syngenta Crop Protection at 1-800-334-9481.

Manufactured for:
Syngenta Crop Protection, LLC
P. O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 828A-L1W 0222
4160242



CYPRODINIL GROUP 9 FUNGICIDE



Fungicide

Active Ingredient:
Cyprodinil: 4-cyclopropyl-6-methyl-
N-phenyl-pyrimidinamine* 75.0%
Other Ingredients: 25.0%
Total: 100.0%

*CAS No. 121552-61-2

Vanguard WG is a water-dispersible granule containing 75% cyprodinil.

See additional precautionary statements and directions for use inside 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. 100-828 EPA Est. 67545-AZ-1

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Manufactured for:

Syngenta Crop Protection, LLC

P. O. Box 18300, Greensboro, NC 27419-8300

SCP 828A-L1W 0222 4160242

3 pounds

2 ounces

Net Weight

KEEP OUT OF REACH OF CHILDREN. CAUTION

FIRST AID

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

NOTE TO PHYSICIAN: If ingested, induce emesis or lavage stomach. Treat symptomatically. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. **HOTLINE NUMBER:** For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident) Call 1-800-888-8372.

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

Environmental Hazards: This pesticide is toxic to fish and aquatic invertebrates. For terrestrial uses: 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 apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwater or rinsate.

Surface and Ground Water Advisory: This chemical may contaminate water through runoff. This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This chemical has a potential for runoff for

several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this chemical. A level, well maintained vegetative buffer strip between areas to which this chemical is applied and surface water features including ponds, streams, and springs will reduce the potential loading of cyprodinil from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's potential to reach aquatic sediment via runoff.

Physical or Chemical Hazards: Do not use, pour, spill or store near heat or open flame.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. **Pesticide Storage:** Keep this product in its tightly closed original container, when not in use. Store in a cool, dry (preferably locked) area that is inaccessible to children and animals. **Pesticide Disposal:** Pesticide wastes may be toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance. **Container Handling:** Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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