

**Syngenta Crop Protection, Inc.**  
**Post Office Box 18300**  
**Greensboro, NC 27419**

**In Case of Emergency, Call**  
**1-800-888-8372**

**1. PRODUCT IDENTIFICATION**

Product Name: **VANGARD WG** Product No.: A8779A  
 EPA Signal Word: Caution  
 Active Ingredient(%): Cyprodinil (75.0%) CAS No.: 121552-61-2  
 Chemical Name: 4-Cyclopropyl-6-methyl-N-phenylpyrimidiamine  
 Chemical Class: Fungicide  
 EPA Registration Number(s): 100-828 **Section(s) Revised: 8, 11, 14**

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Kaolin Clay	15 mg/m <sup>3</sup> TWA (total); 5 mg/m <sup>3</sup> TWA (respirable)	2 mg/m <sup>3</sup> TWA (respirable)	10 mg/m <sup>3</sup> TWA (total); 5 mg/m <sup>3</sup> TWA (respirable)**	No
Crystalline Silica, Quartz	10 mg/m <sup>3</sup> /(%SiO <sub>2</sub> +2) (respirable dust)	0.05 mg/m <sup>3</sup> (respirable silica)	0.05 mg/m <sup>3</sup> (respirable dust)**	IARC Group 2A
Sodium Sulfate	Not Established	Not Established	Not Established	No
Antifoam Agent	15 mg/m <sup>3</sup> TWA (total dust)	10 mg/m <sup>3</sup> TWA (total dust)	Not Established	No
Surfactant	Not Established	Not Established	15 mg/m <sup>3</sup> (total dust)*	No
Surfactant	Not Established	Not Established	15 mg/m <sup>3</sup> TWA (total dust)*	No
Cyprodinil (75.0%)	Not Established	Not Established	7 mg/m <sup>3</sup> TWA ***	No

\* recommended by manufacturer

\*\* recommended by NIOSH

\*\*\* Syngenta Occupational Exposure Limit (OEL)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.  
 Syngenta Hazard Category: B

**3. HAZARDS IDENTIFICATION**
Symptoms of Acute Exposure

Causes mild eye and skin irritation.

Hazardous Decomposition Products

Can decompose at high temperatures forming toxic gases.

Physical Properties

Appearance: Beige granules

Odor: Weak, uncharacteristic

Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

## 4. FIRST AID MEASURES

Have the product container, label or Material Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

- Ingestion: If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
- Skin Contact: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
- Inhalation: If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

### Notes to Physician

There is no specific antidote if this product is ingested.

Treat symptomatically.

### Medical Condition Likely to be Aggravated by Exposure

None known.

## 5. FIRE FIGHTING MEASURES

### Fire and Explosion

- Flash Point (Test Method): Not Applicable
- Flammable Limits (% in Air): Lower: % Not Applicable Upper: % Not Applicable
- Autoignition Temperature: Not Applicable
- Flammability: Not Applicable

### Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

### In Case of Fire

Use dry chemical, foam or CO<sub>2</sub> extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

## 6. ACCIDENTAL RELEASE MEASURES

### In Case of Spill or Leak

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions in Protective Equipment Section. Sweep up material and place in a compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

## 7. HANDLING AND STORAGE

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.**

**FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.**

- Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.
- Eye Contact: Where eye contact is likely, use chemical splash goggles.
- Skin Contact: Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.
- Inhalation: A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH approved respirator with any N, R, or P or HE filter.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Beige granules
- Odor: Weak, uncharacteristic
- Melting Point: 160 - 168°F
- Boiling Point: Not Applicable
- Specific Gravity/Density: 0.47 g/cm<sup>3</sup>
- pH: 8 - 10 (1% solution in H<sub>2</sub>O @ 77°F (25°C))

### Solubility in H<sub>2</sub>O

Cyprodinil: 12 mg/l @ 68°F (20°C)

### Vapor Pressure

Cyprodinil: 3.8 x 10<sup>(-6)</sup> mmHg @ 77°F (25°C)

## 10. STABILITY AND REACTIVITY

- Stability: Stable under normal use and storage conditions.
- Hazardous Polymerization: Will not occur.
- Conditions to Avoid: None known.
- Materials to Avoid: None known.
- Hazardous Decomposition Products: Can decompose at high temperatures forming toxic gases.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity/Irritation Studies (Finished Product)

- Ingestion: Practically Non-Toxic  
Oral (LD50 Rat) : > 5,000 mg/kg body weight
- Dermal: Slightly Toxic  
Dermal (LD50 Rabbit) : > 2,000 mg/kg body weight
- Inhalation: Practically Non-Toxic  
Inhalation (LC50 Rat) : > 2.5 mg/l air - 4 hours
- Eye Contact: Slightly Irritating (Rabbit)
- Skin Contact: Slightly Irritating (Rabbit)
- Skin Sensitization: Not a Sensitizer (Guinea Pig)

### Reproductive/Developmental Effects

- Cyprodinil: No teratogenic potential was detected in tests with rats and rabbits. No effects on the reproductive performance of rats were detected.

### Chronic/Subchronic Toxicity Studies

Cyprodinil: Liver, kidneys and thyroid effects at high doses.

### Carcinogenicity

Cyprodinil: Found to be not carcinogenic in studies with rats and mice. Designated as class E "not likely" for human carcinogenicity (1998 USEPA "Pesticide Fact Sheet").

### Other Toxicity Information

None

### Toxicity of Other Components

#### Antifoam Agent

Dust may irritate nose and throat. May cause an allergic reaction in sensitive individuals. Direct contact with eyes may cause temporary discomfort with mild redness and dryness similar to windburn.

#### Kaolin Clay

Long term exposure to high concentrations of this dust may produce x-ray evidence of dust in the lungs. Continued long term overexposure may affect respiratory function in some individuals.

#### Sodium Sulfate

Exposure may cause irritation of the nose, throat and lungs. Repeated or prolonged contact to the skin results in dermatitis. May cause mild irritation to the eyes.

#### Surfactant

Exposure may result in skin and eye irritation. Prolonged exposure to excessive amounts of dust can cause congestion to respiratory tract.

#### Surfactant

Exposure can result in eye, skin and respiratory tract irritation.

### Target Organs

#### Active Ingredients

Cyprodinil: Liver, kidney, thyroid

#### Inert Ingredients

Antifoam Agent: Eye, respiratory system

Kaolin Clay: Lung

Sodium Sulfate: Respiratory tract, skin, eye

Surfactant: Eye, skin, respiratory tract

Surfactant: Eye, skin, respiratory tract

## **12. ECOLOGICAL INFORMATION**

### Summary of Effects

#### Cyprodinil:

Moderate toxicity to fish, but highly toxic to invertebrates (water flea). Practically non-toxic to birds and bees.

### Eco-Acute Toxicity

#### Cyprodinil:

Bees LC50/EC50 > 100 ug/bee

Invertebrates (Water Flea) LC50/EC50 0.03 ppm

Fish (Trout) LC50/EC50 2.4 ppm

Fish (Bluegill) LC50/EC50 1.07 ppm

Birds (8-day dietary - Bobwhite Quail) LC50/EC50 > 5,200 ppm

Birds (8-day dietary - Mallard Duck) LC50/EC50 > 5,200 ppm

### Eco-Chronic Toxicity

#### Cyprodinil:

Not Available

### Environmental Fate

#### Cyprodinil:

The information presented here is for the active ingredient, cyprodinil.

Low bioaccumulation potential. Not persistent in soil or water. Low mobility in soil. Sinks in water (after 24 h).

### 13. DISPOSAL CONSIDERATIONS

#### Disposal

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

### 14. TRANSPORT INFORMATION

#### DOT Classification

Ground Transport - NAFTA  
Not regulated.

#### B/L Freight Classification

Fungicides, NOIBN, O/T Poison

#### Comments

Water Transportation - International  
Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S. (Cyprodinil), Marine Pollutant  
Hazard Class or Division: Class 9  
Identification Number: UN 3077  
Packing Group: PG III  
EMS #: F-A, S-F

### 15. REGULATORY INFORMATION

#### EPCRA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: Not Applicable

#### California Proposition 65

Not Applicable

#### CERCLA/SARA 302 Reportable Quantity (RQ)

None

#### RCRA Hazardous Waste Classification (40 CFR 261)

Not Applicable

#### TSCA Status

Exempt from TSCA, subject to FIFRA

### 16. OTHER INFORMATION

#### NFPA Hazard Ratings

Health: 1  
Flammability: 1  
Instability: 0

#### HMIS Hazard Ratings

Health: 1  
Flammability: 1  
Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 01/23/1996

Revision Date: 07/28/2005

Replaces: 05/11/2004

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

RSVP# : SCP-955-00284G

End of MSDS