1. PRODUCT IDENTIFICATION

Product Name: DYNASTY PD
EPA Signal Word: Caution

Active Ingredient(%): Azoxystrobin (3.20%)
Chemical Name: Methyl (E)-2-[(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl]-3-methoxyacrylate
Chemical Class: A beta-methyoxyacrylate fungicide

Active Ingredient(%): Fludioxonil (2.00%)
Chemical Name: 4-(2,2-difluoro-1,3-benzodioxol-4-yl)-1H-pyrrole-3-carbonitrile
Chemical Class: Substituted Benzodioxalcarbonitrile Fungicide

Active Ingredient(%): Mefenoxam (0.40%)
Chemical Name: (R,S)-2-[(2,6-dimethylphenyl)-methoxyacetylamino]-propionic acid methyl ester
Chemical Class: Phenylamide Fungicide

EPA Registration Number(s): 100-1190

Section(s) Revised: 1, 2, 8

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Material</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other</th>
<th>NTP/IARC/OSHA Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amorphous Silica</td>
<td>80 mg/m³ %SiO₂ TWA (total dust)</td>
<td>10 mg/m³ TWA (inhalable dust)</td>
<td>Not Established</td>
<td>IARC Group 3</td>
</tr>
<tr>
<td>Mineral Oil</td>
<td>5 mg/m³ (mist)</td>
<td>5 mg/m³ (mist); 10 mg/m³ (STEL)</td>
<td>5 mg/m³ (mist); 10 mg/m³ (STEL)</td>
<td>No</td>
</tr>
<tr>
<td>Talc</td>
<td>20 mppcf (containing &lt;1% quartz) TWA</td>
<td>2 mg/m³ (respirable; &lt;1% crystalline silica) TWA</td>
<td>2 mg/m³ (respirable) TWA</td>
<td>IARC Group 3 **</td>
</tr>
<tr>
<td>Sodium Lignosulphonate</td>
<td>15 mg/m³ (total dust) TWA</td>
<td>10 mg/m³ (total dust) TWA</td>
<td>Not Established</td>
<td>No</td>
</tr>
<tr>
<td>Azoxystrobin (3.20%)</td>
<td>Not Established</td>
<td>Not Established</td>
<td>2 mg/m³ TWA ***</td>
<td>No</td>
</tr>
<tr>
<td>Mefenoxam (0.40%)</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
<td>No</td>
</tr>
<tr>
<td>Fludioxonil (2.00%)</td>
<td>Not Established</td>
<td>Not Established</td>
<td>10 mg/m³ TWA***</td>
<td>No</td>
</tr>
</tbody>
</table>

** 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, S

3. HAZARDS IDENTIFICATION

Symptoms of Acute Exposure
May cause mild eye irritation.

Hazardous Decomposition Products
Can decompose at high temperatures forming toxic gases.

**Physical Properties**
- Appearance: Pink purple powder
- Odor: None

**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 Available
- Flammable Limits (% in Air): Lower: % Not Applicable  Upper: % Not Applicable
- Autoignition Temperature: Not Available
- 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 CO2 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 outlined in Section 8. 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: Pink purple powder
Odor: None
Melting Point: Not Available
Boiling Point: Not Applicable
Specific Gravity/Density: 32.3 pounds/cubic feet @ 77°F (25°C) (measured)

pH: 8 - 10 (1% dispersion in H2O @ 77°F [25°C])

Solubility in H2O
Azoxystrobin: 6 mg/l in water @ 68°F (20°C)
Fludioxonil: 1.8 mg/l @ 77°F (25°C)
Mefenoxam: 26 g/l @ 77°F (25°C)

Vapor Pressure
Azoxystrobin: 8.25 x 10(-13) mmHg @ 68°F(20°C)
Fludioxonil: 2.9 x 10(-9) mmHg @ 77°F (25°C)
Mefenoxam: 2.5 x 10(-5) 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    | Practically Non-Toxic |
Reproductive/Developmental Effects

Azoxystrobin: Shows weak chromosomal damage in mammalian cells at cytotoxic levels. Negative in whole animal assays for chromosomal and DNA damage at high dosages (> or = 2,000 mg/kg). In rabbits, no effect was observed up to the highest dose level (500 mg/kg/day). In rats, developmental effects were seen only at maternally toxic doses (100 mg/kg/day).

Fludioxonil: Delayed development at doses causing maternal toxicity.

Mefenoxam: None observed.

Chronic/Subchronic Toxicity Studies

Azoxystrobin: In a rat 90-day feeding study, liver toxicity was observed at 2,000 ppm. This was manifest as gross distension of the bile duct, increased numbers of lining cells and inflammation of the duct. No toxicologically significant effects were seen in repeat dose dog studies. Data reviews do not indicate any potential for endocrine disruption.

Fludioxonil: Liver and kidney toxicity at high dose levels.

Mefenoxam: Liver effects at high dose levels.

Carcinogenicity

Azoxystrobin: No carcinogenic effects observed in rats or mice at doses up to the maximum tolerated dose.

Fludioxonil: Marginal increase (7%) of liver tumors (female, rats: 3,000 ppm); Within historical control range (1 to 10%).

Mefenoxam: None observed.

Other Toxicity Information

None

Toxicity of Other Components

Amorphous Silica

Amorphous Silica is listed as an IARC (Group 3) carcinogen not classifiable as a human carcinogen (No Data Available) with limited animal evidence. Prolonged exposure to amorphous silica may cause damage to respiratory system and irritation to skin and eyes.

Mineral Oil

May cause respiratory irritation when inhaled as a mist.

Sodium Lignosulphonate

Overexposure results in congestion and irritation of the throat, nasal passages and upper respiratory system. Also may cause temporary irritation and inflammation to the eyes.

Talc

Limited potential for respiratory disease.

Target Organs

Active Ingredients

Azoxystrobin: Liver

Fludioxonil: Liver, kidney

Mefenoxam: Liver

Inert Ingredients

Amorphous Silica: Respiratory tract, skin, eye

Mineral Oil: Respiratory tract

Sodium Lignosulphonate: Eye, respiratory tract
12. ECOLOGICAL INFORMATION

**Summary of Effects**

**Azoxystrobin:**
Highly toxic to fish and invertebrates. Practically non-toxic to birds and bees.

**Fludioxonil:**
Practically nontoxic to birds and bees, but highly toxic to aquatic invertebrates and fish.

**Mefenoxam:**
Practically non-toxic to aquatic organisms and wildlife.

**Eco-Acute Toxicity**

**Azoxystrobin:**
Bees LC50/EC50 > 200 ug/bee
Invertebrates (Water Flea) LC50/EC50 0.259 ppm
Fish (Trout) LC50/EC50 0.47 ppm
Fish (Bluegill) LC50/EC50 1.1 ppm
Birds (8-day dietary - Bobwhite Quail) LC50/EC50 > 5,200 ppm
Birds (8-day dietary - Mallard Duck) LC50/EC50 > 5,200 ppm

**Mefenoxam:**
Bees LC50/EC50 > 25 ug/bee
Invertebrates (Water Flea) LC50/EC50 > 113 ppm
Fish (Trout) LC50/EC50 > 121 ppm
Birds (8-day dietary - Bobwhite Quail) LC50/EC50 5.620 ppm

**Fludioxonil:**
Bees LC50/EC50 > 25 ug/bee
Invertebrates (Water Flea) LC50/EC50 > 0.90 ppm
Fish (Trout) LC50/EC50 0.47 ppm
Fish (Bluegill) LC50/EC50 0.74 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**

**Azoxystrobin:**
Not Available

**Mefenoxam:**
Not Available

**Fludioxonil:**
Fish (Fathead minnow) Early Life Stage MATC 0.028 mg/l
Invertebrate (Daphnia Magna) Life Cycle MATC 0.025 mg/l
Mallard Reproduction NOEC 700 ppm
Bobwhite Reproduction NOEC 125 ppm

**Environmental Fate**

**Azoxystrobin:**
The information presented here is for the active ingredient, azoxystrobin.

**Fludioxonil:**
The information presented here is for the active ingredient, fludioxonil.

**Mefenoxam:**
The information presented here is for the active ingredient, mefenoxam.
Does not bioaccumulate. Not persistent in soil or water. Moderate mobility in soil. Mixes/sinks (after 24 h).

13. DISPOSAL CONSIDERATIONS

**Disposal**

Product Name: DYNASTY PD
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: Under certain circumstances, discarded product may exhibit TCLP hazardous characteristics. A hazardous waste determination should be done on a case by case basis.

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 Transport - International
- Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S. (Azoxystrobin), Marine Pollutant
- Hazard Class or Division: Class 9
- Identification Number: UN 3077
- Packing Group: PG III

### 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

<table>
<thead>
<tr>
<th>NFPA Hazard Ratings</th>
<th>HMIS Hazard Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health:</td>
<td>1</td>
</tr>
<tr>
<td>Flammability:</td>
<td>1</td>
</tr>
<tr>
<td>Instability:</td>
<td>0</td>
</tr>
</tbody>
</table>

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 01/05/2004
Revision Date: 08/26/2004
Replaces: 

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-955-00422B

End of MSDS