AFFIRM™ WDG

For Use on Turf, Ornamentals, and Various Crops

ACTIVE INGREDIENT:
Polyoxin D zinc salt .................................................. 11.3%
OTHER INGREDIENTS ............................................ 88.7%
TOTAL .............................................................. 100.0%

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS

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.

• IF SWALLOWED:
  • Call poison control center or doctor immediately for treatment advice.
  • Have person sip a glass of water if able to swallow.
  • Do not induce vomiting unless told so by the poison control center or doctor.
  • Do not give anything by mouth to an unconscious person.

• IF INHALED:
  • Move person to fresh air.
  • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
  • Call a poison control center or doctor for further treatment advice.

HOTLINE NUMBERS

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

For 24-HOUR EMERGENCY MEDICAL ASSISTANCE:

Call CHEMTREC at 1-800-424-9300 or the Poison Control Center - 1-800-222-1222

For Product Use Information Call: 1-800-524-1662

EPA Reg. No. 68173-3-1001
EPA Est. No. 70815-GA-1

Distributed by:
CLEARY CHEMICALS LLC
178 Ridge Rd, Suite A
Dayton, NJ 08810-1501

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Version: 09.12.12
Replaces: 11.23.11

The information in this MSDS is based on data available to us as of the revision data given herein, and believed to be correct. Judgments as to the suitability of information herein for the individual's own uses or purposes are necessarily the individual's own responsibility. Although reasonable care has been taken in the preparation of such information, Cleary Chemicals LLC extends no warranties, makes no representations, and assumes no responsibility as to the accuracy or suitability of such information for application to the individual's purposes or the consequences of its use.

Prepared by: Richard F. Fletcher

Approval date: 01/18/10
Supersedes date: NA
MSDS number: 4195-001
PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if absorbed through skin, swallowed or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing dust or spray mist. 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.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All mixers, loaders, applicators and other handlers must wear:
• Long-sleeved shirt and long pants
• Socks
• Shoes
• Chemical-Resistant gloves

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and 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 on this label about personal protective equipment (PPE), notification to workers, and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. If you have questions about the applicability of the Worker Protection Standard, call the pesticide information center.

U.S Federal Regulations

FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act): All pesticides are governed under FIFRA. Therefore, the regulations presented below are pertinent only when handled outside of the normal use and applications of pesticides. This includes waste streams resulting from manufacturing/formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.

CERCLA (Comprehensive Response Compensation, and Liability Act): NA

EPCRA (Emergence Planning and Community Right-to-Know Act): None

OSHA (Occupational Safety and Health Administration): NA

RCRA (Resource Conservation and Recovery Act): None

SARA Title III (SUPERFUND Amendments and Reauthorization Act):

Section 302 (EHS) TPQ: NONE
Section 304 (EHS) RQ: NONE
Section 311/312 CATEGORIES
1. Immediate (Acute) Health Effects; YES
2. Delayed (Chronic) Health Effect; NO
3. Fire Hazard; NO
4. Sudden Release of Pressure Hazard; NDA
5. Reactivity Hazard; NDA

TSCA (Toxic Substance Control Act): This product is exempt from TSCA Regulation under FIFRA Section 3 (2)(B)(ii) when used as a pesticide.

State Regulations: Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list of all state regulations. Therefore, the user should consult state or local authorities.

International Regulations:

EEC Classification: NA
Risk Phrases: NA
Safety Phrases: NA

MSDS Number: 4195-001 Issue Date: 01/18/10
NDA = No Data Available NA = Not Applicable
Aquatic Organism Toxicity (based on technical material):
- **Rainbow trout LC50 (96-hrs) = 5.1 ppm**

Avian Toxicity (based on technical material):
- **Mallard duck-oral LD50 >2150 ppm**

Non-Mutagenic

**Mutagenicity:** Non-Mutagenic

**Inhalation Toxicity:**
- LC50 (6 hrs) (male rats) = 2.44 mg/L air
- LC50 (6 hrs) (female rats) = 2.17 mg/L air

**Subchronic Toxicity:** No treatment related effects were observed following chronic exposure in laboratory animals. Calculated Oral NOAEL female mice = 2,059 mg/kg/day, male mice = 2,470 mg/kg/day (TGAI) related effects following chronic exposure in lab animals.

**Chronic/Carcinogenicity (maximum inactive dose):**
- No evidence of carcinogenicity or other treatment related effects following chronic exposure in laboratory animals.
- Calculated Oral NOAEL female rat = 1,333 mg/kg/day, male rat = 119 mg/kg/day (TGAI)

**Teratology/Developmental Toxicity:**
- None observed (rabbits, mice)

**RCRA Hazard Class:**
- End users must dispose of any unused product as per the label recommendations and in accordance with all applicable laws and regulations. Check governmental regulations and local authorities for approved disposal of this material. Preferred method of disposal is by incineration.

**Environmental Fate and Distribution:**
- Product decomposes
- **Marine Pollutant:** NA
- **D.O.T. Label:** NA
- **Product RQ (lbs):** NA
- **U.N./N.A. Number:** NA
- **D.O.T. Hazard Class:** NA
- **Technical Shipping Name:** NA
- **D.O.T. Shipping Name:** NA

**SECTION 12: ECOLOGICAL INFORMATION**

**Oral Toxicity:**
- LD50 (male rat/mice) = 4,916 mg/kg
- LD50 (female rat) = 4,404 mg/kg
- LD50 (female mice) = 3,946 mg/kg

**Inhalation Toxicity:**
- LD50 (male rats) = 2.44 mg/L air
- LD50 (female rats) = 2.17 mg/L air

**LC50 (6 hrs) (male rats) = 2.44 mg/L air**

**SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste Disposal Method:** End users must dispose of any unused product as per the label recommendations and in accordance with all applicable laws and regulations. Check governmental regulations and local authorities for approved disposal of this material. Preferred method of disposal is by incineration.

**RCRA Hazard Class:** NA

**SECTION 14: TRANSPORT INFORMATION**

**D.O.T. Shipping Name:** Pesticide, non-regulated

**Technical Shipping Name:** NA

**Packing Group:** NA

**D.O.T. Hazard Class:** NA

**U.N./N.A. Number:** NA

**Product RQ (lbs):** NA

**LC50 Label:** NA

**D.O.T. Placard:** NA

**Marine Pollutant:** NA

**MSDS Number:** 4195-001 Issue Date: 01/18/10

**NDA = No Data Available NA = Not Applicable**

**AFFIRM™ WDG is not for use on turf being grown for commercial seed production.**

**AFFIRM™ WDG is for use in controlling or suppressing certain diseases on cucurbit vegetables, fruiting vegetables, ginseng, grapes, pome fruits, strawberries, and seedlings or transplants of cucurbit vegetables and fruiting vegetables in a greenhouse, Lath or Shade house, Ornamentals (Greenhouse, Lath or Shade house, Field, Nursery, Container, and Residential and Commercial Landscapes), and Turf (including golf courses, sod, residential lawns, parks, athletic fields, and commercial and institutional grounds) composed of cool and warm season grasses such as Bluegrass, Bentgrass, Fescue, Ryegrass, Bermuda grass, St. Augustinegrass, Zoysiagrass, or their mixtures.**

**Apply AFFIRM™ WDG as a preventative or curative treatment in conjunction with good management practices.**

**RESISTANCE MANAGEMENT RECOMMENDATIONS**

**AFFIRM™ WDG contains a Group 19 fungicide. Fungal isolates with acquired resistance to Group 19 may eventually dominate the fungal population if Group 19 fungicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by AFFIRM™ WDG or other Group 19 Fungicides.**

**To delay fungicide resistance, consider:**
- Avoiding the consecutive use of AFFIRM™ WDG or other target site of action Group 19 fungicides that have a similar target site of action, on the same pathogens.
- Using tank-mixtures or premixes with fungicides from different target site of action Groups as long as the involved products are all registered for the same use and are both effective at the tank mix or prepack rate on the pathogen(s) of concern.
- Basing fungicide use on a comprehensive IPM program.
- Monitoring treated fungal populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors, and/or manufacturer for fungicide resistance management and/or IPM recommendations for specific crops and resistant pathogens.

**MIXING AND APPLICATION**

When diseases not specified on this label are present or expected, it is appropriate to mix AFFIRM™ WDG with appropriately labeled fungicides. When tank mixing AFFIRM™ WDG with other products, observe all precautions and limitations on each separate product label. It is always advisable to conduct a tank mix...
compatibility test when you plan to mix this product with other products. To determine the physical compatibility of this product with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to approximately one quart of water with agitation. Add dry formulations first, then flowables, then emulsifiable concentrates last. After thorough mixing, allow this mixture to stand for 5 minutes. If the combination remains mixed or can be readily remixed, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank. To assess the potential for phytotoxicity, test tank mixtures on a small number of plants prior to more widespread application.

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

Mixing instructions for AFFIRM™ WDG:
• Fill spray tank with water to ½ of the intended final volume.
• Start spray tank agitation.
• Add the appropriate amount of product to the tank according to the rates in the following tables. Follow the directions above for mixing other products in the spray tank.
• Agitate to ensure thorough mixing while adding the remaining required water.
• DO NOT allow the spray mixture to stand without agitation. Mix only the amount of spray solution needed to treat the desired area.

For optimum control of labeled diseases, apply AFFIRM™ WDG with sufficient water to provide a thorough coverage.

CUCURBIT VEGETABLES†
[Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra), Momordica spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon), Pumpkin, Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Squash, winter (includes butternut squash, calabaza, Hubbard squash, acorn squash, spaghetti squash), Watermelon]

<table>
<thead>
<tr>
<th>Disease Control</th>
<th>Rate</th>
<th>Application Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Powdery Mildew</td>
<td>6.2 oz/acre</td>
<td>Mix in appropriate spray volume appropriate for sufficient coverage.</td>
</tr>
<tr>
<td>(Sphaerotheca sp.)</td>
<td>(0.7 oz ai/acre)</td>
<td>For all diseases, spray product preventatively and continue as needed on a 10-14 day interval.</td>
</tr>
<tr>
<td>Gummy Stem Blight</td>
<td>NA</td>
<td>0 day Preharvest Interval.</td>
</tr>
<tr>
<td>(Didymella bryoniæ)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gray Mold</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>(Botrytis sp.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corynespora leaf spot</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Corynespora cassicola)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Cladosporium sp.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early Blight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Alternaria sp.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
† Not for use in California
• Use in alternation with fungicides that have different modes of action.
• Do not apply more than 5 applications of AFFIRM™ WDG (3.5 oz ai/acre) per season.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance and Physical State:** Light brown water dispersible granule

**Odor:** Earthy, clay like odor

**pH:** 5.5-7.5

**Boiling Point:** NA

**Melting Point:** > 240°C

**Freezing Point:** NA

**Vapor Pressure:** NA

**Vapor Density:** NA

**Bulk Density:** 38-42 lbs/cuft

**Evaporation Rate:** NA

**Solubility (active ingredient):**
- Water, acetone, DMSO: Up to 0.1 g/L
- 0.1N hydrochloric acid: 43.5 g/L
- 0.1N sodium hydroxide: 4.0 g/L

**Percent Solids by Weight:** 100%

**Percent Volatile:** 0%

**Volatile Organic Compounds:**
- with water: NDA
- without water: NDA

**Molecular Weight:** NDA

**Viscosity:** NA

**SECTION 10: STABILITY AND REACTIVITY**

**Chemical Stability:** Stable under normal use and storage conditions

**Hazardous Polymerization:** Will not occur

**Flash Point:** NA

**Flammable Point:** NA

**Auto Ignition:** NA

**Incompatibility With Other Materials:** NA

**Hazardous Decomposition Products:** NA

**SECTION 11: TOXICOLOGICAL INFORMATION**

**Acute:**
- Eye Irritation: Positive – Moderate irritation (rabbits)
- Skin Irritation: Negative (rabbits)
- Skin Sensitization: Negative (guinea pigs)
- Dermal Toxicity: LD50 (rats) >2,000 mg/kg

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NDA = No Data Available NA = Not Applicable
### FRUITING VEGETABLES (Except Cucurbits)

- [Eggplant, Groundcherry, Pepino, Pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomato, Tomato]

### Disease Control Rate Application Notes

<table>
<thead>
<tr>
<th>Disease</th>
<th>Rate</th>
<th>Application Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Powdery Mildew (Leveillula taurica, Oidiopsus sipula)</td>
<td>6.2 oz/acre (0.7 oz ai/acre)</td>
<td>• Mix in appropriate spray volume appropriate for sufficient coverage. • For all diseases, spray product preventatively and continue as needed on a 10-14 day interval. • 0 day Preharvest Interval.</td>
</tr>
<tr>
<td>Botrytis Rot (Botrytis sp.)</td>
<td>6.2 oz/acre (0.7 oz ai/acre)</td>
<td></td>
</tr>
<tr>
<td>Early Blight (Alternaria solani)</td>
<td>6.2 oz/acre (0.7 oz ai/acre)</td>
<td></td>
</tr>
</tbody>
</table>

### Disease Suppression

| Anthracnose (Colletotrichum coccodes) | |

### Notes:

- † Not for use in California
- • Use in alternation with fungicides that have different modes of action.
- • Do not apply more than 5 applications of AFFIRM™ WDG (3.5 oz ai/acre) per season.

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### GINSENG†

<table>
<thead>
<tr>
<th>Disease Control</th>
<th>Rate</th>
<th>Application Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternaria blight (Alternaria panax)</td>
<td>6.2 oz/acre (0.7 oz ai/acre)</td>
<td>• Apply as a foliar spray every 7–10 days. • Apply prior to disease development and when conditions are conducive for disease.†</td>
</tr>
<tr>
<td>Botrytis blight (Botrytis cinerea)</td>
<td>6.2 oz/acre (0.7 oz ai/acre)</td>
<td></td>
</tr>
</tbody>
</table>

### Root and Crown Disease Control

<table>
<thead>
<tr>
<th>Disease Control</th>
<th>Rate</th>
<th>Application Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cylindrocarpon root rot (Cylindrocarpon destructans)</td>
<td>6.2 oz/acre (0.7 oz ai/acre)</td>
<td>• Apply as a drench every 14 days.</td>
</tr>
<tr>
<td>Rhizoctonia root and crown rot (Rhizoctonia solani)</td>
<td>6.2 oz/acre (0.7 oz ai/acre)</td>
<td>• Apply as a drench every 14–28 days.</td>
</tr>
</tbody>
</table>

### Notes:

- † Not for use in California
- • Use in alternation with fungicides that have different modes of action.
- • Do not apply more than 3 applications of AFFIRM™ WDG (2.1 oz ai/acre) per season.
### GRAPES

<table>
<thead>
<tr>
<th>Disease Control</th>
<th>Rate</th>
<th>Application Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botrytis Bunch Rot</td>
<td>6.2 oz/acre</td>
<td>• Mix in appropriate spray volume appropriate for sufficient coverage.</td>
</tr>
<tr>
<td>(Botrytis cinerea)</td>
<td>(0.7 oz ai/acre)</td>
<td>• For Botrytis Bunch Rot control, spray product at veraison and 7 days prior to harvest.</td>
</tr>
<tr>
<td>Powdery Mildew</td>
<td></td>
<td>• For Powdery Mildew control, begin sprays preventatively and continue as needed on a 14 day interval.</td>
</tr>
<tr>
<td>(Uncinula necator)</td>
<td></td>
<td>• 0 day Preharvest Interval.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Do not apply by air.</td>
</tr>
</tbody>
</table>

**Disease Suppression**

<table>
<thead>
<tr>
<th>Disease Suppression</th>
<th>Rate</th>
<th>Application Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Powdery Mildew</td>
<td>6.2 oz/acre</td>
<td>• Mix in appropriate spray volume appropriate for sufficient coverage.</td>
</tr>
<tr>
<td>(Uncinula necator)</td>
<td>(0.7 oz ai/acre)</td>
<td>• Start sprays for scab control at green tip and continue as needed on a 7-10 day interval.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• For Powdery Mildew control, begin preventatively and repeat as necessary on a 10-14 day interval. Use of an alternation program with a sterol inhibiting fungicide is recommended.</td>
</tr>
</tbody>
</table>

**Notes:**
- Use in alternation with fungicides that have different modes of action.
- Do not apply more than 3 applications of AFFIRM™ WDG (2.1 oz ai/acre) per season.

### POME FRUITS†

**Disease Control**

<table>
<thead>
<tr>
<th>Disease Control</th>
<th>Rate</th>
<th>Application Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Powdery Mildew</td>
<td>6.2 oz/acre</td>
<td>• Mix in appropriate spray volume appropriate for sufficient coverage.</td>
</tr>
<tr>
<td>(Apple: Podosphaera leucotricha)</td>
<td>(0.7 oz ai/acre)</td>
<td>• Start sprays for scab control at green tip and continue as needed on a 7-10 day interval.</td>
</tr>
<tr>
<td>Alternaria Leaf Spot</td>
<td></td>
<td>• For Powdery Mildew control, begin preventatively and repeat as necessary on a 10-14 day interval. Use of an alternation program with a sterol inhibiting fungicide is recommended.</td>
</tr>
<tr>
<td>(Alternaria mali)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blotch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Diplocarpon mali)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Disease Suppression**

<table>
<thead>
<tr>
<th>Disease Suppression</th>
<th>Rate</th>
<th>Application Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scab</td>
<td></td>
<td>• 0 day Preharvest Interval.</td>
</tr>
</tbody>
</table>

**Notes:**
† Not for use in California
- Use in alternation with fungicides that have different modes of action.
- Do not apply more than 6 applications of AFFIRM™ WDG (4.2 oz ai/acre) per season.

### AFFIRM™ WDG

#### SECTION 3: HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**

**CAUTION:**
- CAUSES MODERATE EYE IRRITATION
- AVOID CONTACT WITH EYES/SKIN/CLOTHING
- AVOID BREATHING SPRAY MIST
- KEEP OUT OF REACH OF CHILDREN

**Acute Health Hazards**

**Eyes:** Causes moderate eye irritation. The degree of the irritation/injury will depend upon the amount and duration of exposure.

**Skin:** Harmful if absorbed through the skin. Avoid contact with skin and clothing. Wash thoroughly with soap and water after handling. Prolonged exposure may cause skin sensitization.

**Inhalation:** Harmful if inhaled.

**Chronic Health Hazards (Including Cancer):** Chronic exposures to low level amounts of this material are not carcinogenic.

**Teratology (Birth Defects) Information:** No evidence of carcinogenicity or other treatment related effects was observed in animal testing.

**Mutagenicity:** No evidence of mutagenicity was observed during animal testing.

**Reproductive and Developmental:** No evidence of reproductive or developmental toxicity was observed during animal testing.

#### SECTION 4: FIRST AID MEASURES

**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.

**Inhalation:** Move person to fresh air. If person is not breathing, call 9-1-1 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**Ingestion:** Call poison Control Center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

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

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**MSDS Number:** 4195-001
**Issue Date:** 01/18/10
**NDA = No Data Available**
**NA = Not Applicable**
**STRAWBERRIES†**

### Disease Control

- **Anthracnose Leaf and Fruit Rot**
  - **Rate:** 6.2 oz/acre
  - **Application Notes:** Mix in appropriate spray volume appropriate for sufficient coverage. Begin applications preventively and continue as needed on a 7–10 day interval. 0 day Preharvest Interval. Do not apply by air. Use of adjuvant may enhance coverage.

- **Botrytis Fruit Rot**
  - **Rate:** (0.7 oz ai/acre)

- **Powdery Mildew**
  - **Rate:** (Sphaerotheca macularis)

Notes:
- † Not for use in California
- Use in alternation with fungicides that have different modes of action.
- Do not apply more than 3 applications of AFFIRM™ WDG (2.1 oz ai/acre) per season.

**ORNAMENTALS**

### Foliar Disease Control

- **Anthracnose**
  - **Rate:** 0.25 – 0.5 lb/100 gal/acre
- **Botrytis blight**
  - **Rate:** (Botrytis cinerea)
  - **Curvularia**
  - **Downy Mildew**
  - **Powdery Mildew**
  - **Rhizoctonia aerial blight**
  - **Rhizoctonia solani**
    - **Rate:** 0.5 lb/100 gal/acre

- **Alternaria blight**
  - **Rate:** (Alternaria panax)
- **Petiole Rot**
  - **Rate:** (Myrothecium)
- **Apple scab**
  - **Rate:** (Venturia inaequalis)

### Root and Crown Disease Control

- **Rhizoctonia root and crown rot**
  - **Rate:** 0.25 – 0.5 lb/100 gal/acre
- **Black Root Rot**
  - **Rate:** (Thielaviopsis)
  - **Rate:** 0.5 lb/100 gal/acre

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME:** AFFIRM™ WDG

**EPA REGISTRATION NUMBER(S):** 68173-3-1001

**SYNONYM(S):** Polyoxin D Zinc Salt, TM-43803

**COMPANY**

Cleary Chemicals LLC

178 Ridge Road, Suite A

Dayton, NJ 08810

**EMERGENCY TELEPHONE NUMBERS**

- **HEALTH EMERGENCY:** 1-800-222-1222
- **SPILL EMERGENCY:** 1-800-424-9300
- **POISON CONTROL CENTER:** CHEMTREC

**SECTION 2: CONFIRMATION/INFORMATION ON INGREDIENTS**

<table>
<thead>
<tr>
<th>Active Ingredient(s)/Hazardous Inert Ingredient(s)</th>
<th>CAS #</th>
<th>Exposure Limits</th>
<th>Weight</th>
<th>% Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyoxin D Zinc Salt</td>
<td>146659-78-1</td>
<td>TWA: None</td>
<td>11.3</td>
<td>NA</td>
</tr>
</tbody>
</table>

Only the identities of the active ingredient(s) and any hazardous inert ingredients are listed. Specific information on all of this product's ingredients can be obtained by the treating medical professional or spill emergency responder for the management of exposures, spills, or safety assessments.

- **TWA:** Time-weighted average exposure concentration for a conventional 8-hour (TLV, PEL) or up to a 10-hour (REL) workday and a 40-hour workweek.
- **OSHA PEL:** Occupational Safety and Health Administration Permissible Exposure Limits.
- **ACGIH TLV:** American Conference of Governmental Industrial Hygienists, Inc., Threshold Limit Values.
- **NIOSH REL:** National Institute for Occupational Safety and Health Recommended Exposure Limits.

**MSDS Number:** 4195-001

**Issue Date:** 01/18/10

**NDA = No Data Available NA = Not Applicable**
• **Consult your local extension agent or local recommendations for information relating to proper timing for control of these diseases.**, **• **Includes Christmas tree (Nursery and plantation), non-bearing fruit vines, non-bearing fruit trees, and non-bearing nut trees**, **• Use in alternation with fungicides that have different modes of action.**

### TURF GRASSES

<table>
<thead>
<tr>
<th>Disease</th>
<th>Rate</th>
<th>Application Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown Patch (Rhizoctonia solani)</td>
<td>2.4 lbs/acre</td>
<td>Repeats treatment on a 7-14 day schedule w/ environmental conditions are conducive to development of diseases. Consult your local extension agent or local recommendations for information relating to proper timing for control of these Diseases. When symptoms are present, best control will be achieved by using a shorter interval. For best results apply after mowing. Apply to obtain thorough plant coverage in a minimum of 66 gallons water per acre.</td>
</tr>
<tr>
<td>Large Patch (Rhizoctonia solani)</td>
<td>(0.27 lb ai/acre)</td>
<td></td>
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<tr>
<td>Aids in Control (except California)</td>
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<tr>
<td>Cool Season Brown Patch or Yellow Patch (Rhizoctonia cerealis)</td>
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<tr>
<td>Foliar and Basal Anthracnose (Colletotrichum cereale)</td>
<td></td>
<td></td>
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<tr>
<td>Gray Snow Mold (Typhula ishikariensis and Typhula incarnata)</td>
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<tr>
<td>Leaf Spot/Melting Out (Dreschlera poae)</td>
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<tr>
<td>Pink Snow Mold (Microdochium rivale)</td>
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<tr>
<td>Red Thread (Laetaria fuciformis)</td>
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<tr>
<td>Rhizoctonia Damping Off (Rhizoctonia solani)</td>
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<tr>
<td>Rhizoctonia Leaf and Sheath Blight (Rhizoctonia zeae)</td>
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<tr>
<td>Waitea Patch (Brown Ring Patch) (Waiteria cinarina)</td>
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<tr>
<td>Zoysia Patch (Rhizoctonia solani)</td>
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<tr>
<td>Aids in Suppression (except California)</td>
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<tr>
<td>Gray Leaf Spot (Pyniculinaria grisea)</td>
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<td></td>
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<tr>
<td><strong>Suppression and Short Term Control:</strong></td>
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<td></td>
</tr>
<tr>
<td>Fairy Ring (including Marasmius spp., Leptota, spp. and Agarius spp.)</td>
<td>1 oz/1000 sq ft in minimum of 1 gallon of water (0.27 lb ai/acre in 66 gallons of water)</td>
<td>Make two-three applications a week or every 7 days. Use a penetrating wetting agent.</td>
</tr>
</tbody>
</table>

### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in dry place away from food or feed.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Offer for recycling, if available, or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed, by State and local authorities, by burning. If burned, stay out of smoke.

### Warranty and Disclaimer Statement

1. The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Such risks may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of Cleary Chemicals LLC (Cleary), and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

2. Cleary 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 described above, when used in accordance with the Directions for Use under normal conditions.

3. This warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to Cleary, and is subject to the inherent risks described above. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, CLEARY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, CLEARY, MANUFACTURER, AND SELLER DISCLAIM AND SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE, HANDLING, APPLICATION, STORAGE, OR DISPOSAL OF THIS PRODUCT OR FOR DAMAGES IN THE NATURE OF PENALTIES, AND THE USER AND BUYER WAIVE ANY RIGHT THAT THEY MAY HAVE TO SUCH DAMAGES. NO AGENT, REPRESENTATIVE OR EMPLOYEE OF CLEARY IS AUTHORIZED TO MAKE ANY WARRANTY, GUARANTEE OR REPRESENTATION BEYOND THOSE CONTAINED HEREIN OR TO MODIFY THE WARRANTIES CONTAINED HEREIN.


AFFIRM® is a trademark of Cleary Chemical, LLC.
AFFIRM™ WDG

For Use on Turf, Ornamentals, and Various Crops

ACTIVE INGREDIENT:
Polyoxin D zinc salt .......................................................... 11.3%
OTHER INGREDIENTS ......................................................... 88.7%
TOTAL .......................................................... 100.0%

KEEP OUT OF REACH OF CHILDREN

CAUTION
SEE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS

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.

• IF SWALLOWED:
  • Call poison control center or doctor immediately for treatment advice.
  • Have person sip a glass of water if able to swallow.
  • Do not induce vomiting unless told so by the poison control center or doctor.
  • Do not give anything by mouth to an unconscious person.

• IF INHALED:
  • Move person to fresh air.
  • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
  • Call a poison control center or doctor for further treatment advice.

HOTLINE NUMBERS
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE:
Call CHEMTREC at 1-800-424-9300 or the Poison Control Center - 1-800-222-1222

For Product Use Information Call: 1-800-524-1662

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