For use on Turf and Ornamentals

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 Poison Control Center - 1-800-222-1222

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

USER SAFETY REQUIREMENTS
Follow the manufacturer’s instructions for cleaning/maintaining PPE. If no such instructions for washables are available, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS
• Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
• Users should 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 product is moderately toxic to aquatic invertebrates and fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Do not allow runoff into lakes, streams, ponds or public waterways. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.
Granules exposed on soil surface may be hazardous to fish and aquatic invertebrates. Collect granules spilled during loading.
Observe the most restrictive of labeling limitations and precautions of all products used in mixtures.

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. 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.

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 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.

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 entry into treated areas during the restricted entry interval (REI) of 4 hours unless wearing appropriate PPE. PPE required for early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is: coveralls, socks, shoes, chemical resistant gloves.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses. Keep children and pets out of treated area until sprays have dried.

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.

FOR 24 HOUR CHEMICAL EMERGENCY (Spill, Leak, Fire or Accident) ASSISTANCE: CALL CHEMTREC 1-800-424-9300

GENERAL INFORMATION

AFFIRM™ WDG is not for use on turf being grown for commercial seed production. AFFIRM™ WDG is not for homeowner use to treat food crops. AFFIRM™ WDG is for use in controlling or suppressing certain diseases in a Greenhouse, Lath or Shade house, ornamentals (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, Bermudagrass, St. Augustinegrass, Zoysiagrass, or their mixtures. Apply AFFIRM™ WDG as a preventive or curative treatment in conjunction with good management practices.

RESISTANCE MANAGEMENT DIRECTIONS

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 mixes 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 1/2 of 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.

### ORNAMENTALS

<table>
<thead>
<tr>
<th>Foliar Disease Control</th>
<th>Rate</th>
<th>Application Notes</th>
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</thead>
<tbody>
<tr>
<td>Anthracnose (Colletotrichum)</td>
<td>0.25-0.5 lb/100 gal/acre (0.03-1 gal/acre)</td>
<td>Apply as a full coverage foliar spray every 7 – 10 days with sufficient water for plant type and maturity (50-300 gallons/acre).</td>
</tr>
<tr>
<td>Botrytis blight (Botrytis cinerea)</td>
<td>0.06 lb ai/100 gal/acre</td>
<td>Apply prior to disease development and when conditions are conducive for disease development. Consult your local extension agent or local recommendations for information relating to proper timing for control of these diseases.</td>
</tr>
<tr>
<td>Curvularia</td>
<td></td>
<td></td>
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<tr>
<td>Downy Mildew (Peronospora spp., Plasmopara spp.)</td>
<td></td>
<td></td>
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<tr>
<td>Powdery Mildew (Oidium sp., Erysiphe sp., Sphaerotheca sp.)</td>
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<tr>
<td>Rhizoctonia aerial blight</td>
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</tbody>
</table>
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:
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 lab animals. Calculated Oral NOAEL female rat = 1,333 mg/kg/day, male rat = 119 mg/kg/day (TGAI)

Chronic/Carcinogenicity (maximum inactive dose): No evidence of carcinogenicity or other treatment related effects following chronic exposure in lab animals. Calculated Oral NOAEL female mice = 2,059 mg/kg/day, male mice = 2,470 mg/kg/day (TGAI)

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

Mutagenicity: Non-Mutagenic

SECTION 12: ECOLOGICAL INFORMATION

Environmental Fate and Distribution: Product decomposes
Aquatic Organism Toxicity (based on technical material): Rainbow trout LC50 (96-hrs) = 5.1 ppm; Daphnia EC50 = 1.4 ppm
Avian Toxicity (based on technical material): Mallard duck-oral LD50 >2150 ppm; Mallard duck-dietary LC50 >5000 ppm

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
D.O.T. 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
Notes:
• With the exception for treatment of Fairy Ring, irrigation or rainfall soon after treatment with AFFIRM™ WDG will decrease disease control. For best control, do not irrigate for 12 hours after treatment.
• Use in alternation with fungicides that have different modes of action.
**SECTION 5: FIRE FIGHTING MEASURES**

<table>
<thead>
<tr>
<th>Flammable Limits in Air (% by volume):</th>
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<tr>
<td>Upper: NDA</td>
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<tr>
<td>Lower: NDA</td>
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<table>
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<tr>
<th>Flash Point:</th>
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<tr>
<td>NDA</td>
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<table>
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<tr>
<th>Auto-ignition Temperature:</th>
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<tbody>
<tr>
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<table>
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<tr>
<th>LEL/UEL:</th>
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<tr>
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<table>
<thead>
<tr>
<th>NFPA Hazard Classification:</th>
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</thead>
<tbody>
<tr>
<td>Health: 1</td>
</tr>
<tr>
<td>Flammability: 0</td>
</tr>
<tr>
<td>Reactivity: 0</td>
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<tr>
<td>Other: None</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Extinguishing Media:</th>
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</thead>
<tbody>
<tr>
<td>Water spray or dry chemical</td>
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</table>

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**EMERGENCY PHONE NUMBERS**
Poison Control Center: 1-800-222-1222
Spill Calls (CHEMTREC): 1-800-424-9300

Sweep up spilled material and place in covered, dry container. Wash spill response materials thoroughly before reuse. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**SECTION 7: HANDLING AND STORAGE**

It is a violation of federal law to use this product in a manner inconsistent with its labeling. Read entire label. Use strictly in accordance with label precautionary statements and directions. READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL. Handle and open container with care. Avoid inhaling this material. Avoid eye and skin contact with this material. Wash contaminated clothes thoroughly before reuse. Use with adequate ventilation. Wash thoroughly with soap and water after handling. Keep container closed or equipped with a local air exhauster. Handle the container carefully. Do not drop or drag the container. Avoid impacts to the container. Store container in dry conditions without direct sunlight.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Eye Protection:** Wear suitable eye protection.

**Respiratory/Ventilation Requirements:** Dust-proof mask.

**Skin Protection:** Wear appropriate protective clothing and gloves to prevent skin contact.

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

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 applications, 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 by CLEARY, and is subject to the inherent risks described above. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, CLEARY DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED 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 HERIN OR TO MODIFY THE WARRANTIES CONTAINED HERIN.


AFFIRM™ WDG is a trademark of Cleary Chemicals LLC.
MATERIAL SAFETY DATA SHEET

AFFIRM™ WDG

AFFIRM™ WDG

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

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

Active Ingredient(s)/ Hazardous Inert Ingredient(s) | CAS # | Exposure Limits* | % Weight | % Volume
--- | --- | --- | --- | ---
Polyoxin D Zinc Salt | 146659-78-1 | TWA* | 11.3 | NA

OSHA PEL*: None
ACGIH TLV*: None
NIOSH REL*: None

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.

*Source: Guide to Occupational Exposure Values 2000, published by ACGIH

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.

Section 3: Hazards Identification

Acute Health Hazards

Eye: 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.

Ingestion: Harmful if swallowed.

Inhalation: Harmful if inhaled.

Chronic Health Hazards (Including Cancer):

Chronic exposures to low level amounts of this material are not carcinogenic.

Teratogenicity (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 advice.