



# MATERIAL SAFETY DATA SHEET

AFFIRM™ WDG

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Please read the entire document. This Material Safety Data Sheet contains important environmental, health and toxicology information for your employees, and anyone who will use, transport, store, dispose of or handle this product. Please make sure this information is given to them. It also contains information to help you meet community right-to-know/emergency response reporting requirements under SARA Title III and many other laws. If you resell this product, this MSDS must be given to the buyer or the information contained herein must be incorporated in your MSDS.

## 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**

<b>HEALTH EMERGENCY:</b> 1-800-228-5635 ext. 174 PROSAR	<b>SPILL EMERGENCY:</b> 1-800-424-9300 CHEMTREC
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## SECTION 2: CONFIRMATION/INFORMATION ON INGREDIENTS

Active Ingredient(s)/ Hazardous Inert Ingredient(s)	CAS #	Exposure Limits*	% Weight	% Volume
5-(2-amino-5-O-carbamoyl-2-deoxy-L-xylonamid)-5-deoxyl-1-(1,2,3,4-tetrahydro-5-carboxin-2,4-dioxypyrimidinyl)-β-D-allofuran uronic acid zinc salt	146659-78-1	<b>TWA<sup>a</sup></b> OSHA PEL <sup>b</sup> : None ACGIH TLV <sup>c</sup> : None NIOSH REL <sup>d</sup> : None	11.3	NA

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

<sup>a</sup>**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.

<sup>b</sup>**OSHA PEL**: Occupational Safety and Health Administration Permissible Exposure Limits.

<sup>c</sup>**ACGIH TLV**: American Conference of Governmental Industrial Hygienists, Inc., Threshold Limit Values.

<sup>d</sup>**NIOSH REL**: National Institute for Occupational Safety and Health Recommended Exposure Limits.

**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**

**Eye:** May cause moderate eye irritation. The degree of the irritation/injury will depend upon the amount and duration of exposure.

**Skin:** May cause slight skin irritation. Avoid contact with skin and clothing. Wash thoroughly with soap and water after handling. Prolonged exposure may cause skin sensitization.

**Ingestion:** This product is not expected to be an ingestion hazard under normal handling.

**Inhalation:** This product is not expected to be an inhalation hazard under normal handling.

**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 treatment advice.

**Ingestion:** 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.

## SECTION 5: FIRE FIGHTING MEASURES

<b>Flammable Limits in Air (% by volume):</b>		
	<b>Upper:</b>	NDA
	<b>Lower:</b>	NDA
<b>Flash Point:</b>		
	<b>Method Used:</b>	NDA
<b>Auto-ignition Temperature:</b>		
<b>LEL/UEL:</b>		
<b>NFPA Hazard Classification:</b>		
	<b>Health:</b>	1
	<b>Flammability:</b>	0
	<b>Reactivity:</b>	0
	<b>Other:</b>	None
<b>Extinguishing Media:</b>		
Water spray or dry chemical		
<b>Special Fire Fighting Procedures:</b>		
NDA		
<b>Unusual Fire/Explosion Hazards</b>		
NDA		
<b>Hazardous Combustion Products:</b>		
NDA		

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### EMERGENCY PHONE NUMBERS

**Exposure Calls (PROSAR): 1-800-228-5635 Ext. 174 or 1-651-632-8946 (International)**

**Spill Calls (CHEMTREC): 1-800-424-9300**

Sweep up spilled material and place in covered, dry container. Wash spill response materials thoroughly before reuse.

## 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.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance and Physical State:</b>	Light brown water dispersible granule
<b>Odor:</b>	Earthy, clay like odor
<b>pH:</b>	5.5-7.5
<b>Boiling Point:</b>	NA
<b>Melting Point:</b>	> 240°C
<b>Freezing Point:</b>	NA
<b>Vapor Pressure:</b>	NA
<b>Vapor Density:</b>	NA
<b>Bulk Density:</b>	38-42 lbs/cuft
<b>Evaporation Rate:</b>	NA
<b>Solubility (active ingredient):</b>	
<b>Water, acetone, DMSO:</b>	Up to 0.1 g/L
<b>0.1N hydrochloric acid:</b>	43.5 g/L
<b>0.1N sodium hydroxide:</b>	4.0 g/L
<b>Percent Solids by Weight:</b>	100
<b>Percent Volatile:</b>	0
<b>Volatile Organic Compounds:</b>	
<b>with water:</b>	NDA
<b>without water:</b>	NDA
<b>Molecular Weight:</b>	NDA
<b>Viscosity:</b>	NA

## SECTION 10: STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable under normal use and storage conditions
<b>Hazardous Polymerization:</b>	Will not occur
<b>Flash Point:</b>	NDA
<b>Flammable Point:</b>	NDA
<b>Auto Ignition:</b>	NDA
<b>Incompatibility With Other Materials:</b>	NDA
<b>Hazardous Decomposition Products:</b>	NDA

## SECTION 11: TOXICOLOGICAL INFORMATION

### Acute:

**Eye Irritation:** Positive – Moderate irritation (rabbits)

**Skin Irritation:** Negative (rabbits)

**Skin Sensitization:** Negative (guinea pigs)

**Dermal Toxicity:** LD<sub>50</sub> (rats) >2,000 mg/kg

**Oral Toxicity:** LD<sub>50</sub> (male rat/mice) = 4,916 mg/kg  
 LD<sub>50</sub> (female rat) = 4,404 mg/kg  
 LD<sub>50</sub> (female mice) = 3,946 mg/kg

**Inhalation Toxicity:** LC<sub>50</sub> (6 hrs) (male rats) = 2.44 mg/L air  
 LC<sub>50</sub> (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 (mice, rats) = 10,000 mg/kg/day (Polyoxin D technical)

**Chronic/Carcinogenicity (maximum inactive dose):** No evidence of carcinogenicity or other treatment related effects following chronic exposure in lab animals.

Calculated Oral (mice) = 4,200 mg/kg/day, Oral (rats) = 2,500 mg/kg/day

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

**Mutagenicity:** Negative

## SECTION 12: ECOLOGICAL INFORMATION

**Environmental Fate and Distribution:** Product decomposes

**Aquatic Organism Toxicity (based on technical material):**

Rainbow trout LC<sub>50</sub> (96-hrs) = 5.1 ppm

Daphnia EC<sub>50</sub> = 1.4 ppm

**Avian Toxicity (based on technical material):**

Mallard duck-oral LD<sub>50</sub> >2150 ppm

Mallard duck-dietary LC<sub>50</sub> >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

<b>D.O.T. Shipping Name:</b>	Pesticide, non-regulated
<b>Technical Shipping Name:</b>	NA
<b>Packing Group:</b>	NA
<b>D.O.T. Hazard Class:</b>	NA
<b>U.N./N.A. Number:</b>	NA
<b>Product RQ (lbs):</b>	NA
<b>D.O.T. Label:</b>	NA
<b>D.O.T. Placard:</b>	NA
<b>Marine Pollutant:</b>	NA
<b>IMO :</b>	
<b>IMO Label:</b>	NA
<b>IMO Placard:</b>	NA
<b>IMDG Code:</b>	NA
<b>European Road/Rail:</b>	
<b>Class:</b>	NA
<b>Item NO.:</b>	NA

## SECTION 15: REGULATORY INFORMATION

### 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	<ol style="list-style-type: none"> <li>1. Immediate (Acute) Health Effects; <b>YES</b></li> <li>2. Delayed (Chronic) Health Effect; <b>NO</b></li> <li>3. Fire Hazard; <b>NO</b></li> <li>4. Sudden Release of Pressure Hazard; <b>NDA</b></li> <li>5. Reactivity Hazard; <b>NDA</b></li> </ol>
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**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

## SECTION 16: OTHER INFORMATION

<b>Reason for issue:</b>	New MSDS (New EPA Registration Number)
<b>Prepared by:</b>	Richard F. Fletcher
<b>Approval date:</b>	10/30/09
<b>Supersedes date:</b>	NA
<b>MSDS number:</b>	4195-001

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.