



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: Ph-D™ Water Dispersible Granules
EPA REGISTRATION NUMBER(S): 66330-56
SYNONYM(S): Polyoxin Z Dry Flowable

COMPANY

Arysta LifeScience North America LLC
 15401 Weston Parkway, Suite 150
 Cary, NC 27513

EMERGENCY TELEPHONE NUMBERS

| | |
|--|--|
| HEALTH EMERGENCY: | SPILL EMERGENCY: |
| 1-866-303-6952, or 1-651-632-8946 | 1-800-424-9300, or 1-703-527-3887 |

SECTION 2: COMPOSITION/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 | <u>TWA</u>^a OSHA PEL ^b : None ACGIH [®] TLV ^{®c} : None NIOSH REL ^d : None | 11.3 | NDA |

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 2003*, published by ACGIH[®]

^a**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.

^b**OSHA PEL**: U.S. Occupational Safety and Health Administration Permissible Exposure Limits.

^c**ACGIH[®] TLV[®]**: American Conference of Governmental Industrial Hygienists Threshold Limit Values.

^d**NIOSH REL**: U.S. National Institute for Occupational Safety and Health Recommended Exposure Limits.

SECTION 3: HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

CAUTION:

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

Acute Health Hazards

Eye: May cause moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

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: Not expected to be an ingestion hazard under normal handling procedures.

Inhalation: Not expected to be an inhalation hazard under normal handling procedures.

Chronic Health Hazards (Including Cancer): No evidence of carcinogenicity or other treatment-related effects following chronic exposure in laboratory animals.

Reproductive and developmental Toxicity: No evidence of reproductive or developmental toxicity.

SECTION 4: FIRST AID MEASURES

Eyes: Hold eye open and rinse slowly and gently with water for at 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. Call a poison control center or doctor for treatment advice.

Ingestion: Call a poison control center or doctor 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.

SECTION 5: FIRE FIGHTING MEASURES

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

EMERGENCY PHONE NUMBERS

Exposure Calls (PROSAR): 1-866-303-6952 or 1-651-632-8946 (International)

Spill Calls (CHEMTREC): 1-800-424-9300 or 1-703-527-3887

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

| | |
|--|---|
| Appearance: | Dusty sable brown |
| Odor: | Clay-like, earth |
| Physical State: | Small granule |
| pH: | NDA |
| Boiling Point: | NA |
| Melting Point: | NDA |
| Freezing Point: | NA |
| Vapor Pressure: | NA |
| Vapor Density: | NA |
| Bulk Density: | Approximately 40 lbs/ft ³ |
| Specific Gravity: | NDA |
| Evaporation Rate: | NA |
| Explodability: | No explosive properties |
| Oxidation/Reduction: | No significant temperature increases (greater than 5°C), evolution of gases, noxious fumes, splattering, or evolution of flame were seen when the test substance was placed in contact with water, zinc powder or monoammonium phosphate for evolution of bubbles were seen when the test substance was placed in contact with household bleach for 24 hours. |
| Solubility: | NDA |
| Percent Solids by Weight: | NA |
| Percent Volatile: | No explosive properties |
| Volatile Organic Compounds (VOC): | 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: | NDA |
| Flammable Point: | NDA |
| Auto Ignition: | NDA |
| Incompatibility With Other Materials: | NDA |
| Hazardous Decomposition Products: | NDA |

SECTION 11: TOXICOLOGICAL INFORMATION

Acute:

Eye Irritation: Moderate irritation (Rabbits)

Skin Irritation: Negative (Rabbits)

Skin Sensitization: Negative (Guinea pigs)

Dermal Toxicity: LD₅₀ (male and female rats) > 2,000 mg/kg

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

Inhalation Toxicity: 4-hour LC₅₀ (aerosol) = > 2.41 mg/L

Subchronic Toxicity: No treatment-related effects were observed following chronic exposure in laboratory animals to polyoxin D technical.

Chronic/Carcinogenicity: No evidence of carcinogenicity or other treatment-related effects following chronic exposure in laboratory animals.

Teratology/Developmental Toxicity: No evidence of developmental toxicity.

Mutagenicity: NDA

SECTION 12: ECOLOGICAL INFORMATION

Environmental Fate and Distribution: Product decomposes

Aquatic Organism Toxicity (based upon technical material):

Rainbow trout (*Oncorhynchus mykiss*) 96-hr LC₅₀ = 5.1 ppm
Daphnid (*Daphnia magna*) EC₅₀ = 1.4 ppm

Avian Toxicity (based upon technical material):

Mallard duck oral LD₅₀ > 2150 ppm
Mallard duck dietary LC₅₀ > 5000 ppm

SECTION 13: DISPOSAL CONSIDERATIONS

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.

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 |
| IMO: | |
| IMO Label: | NA |
| IMO Placard: | NA |
| European Road/Rail: | |
| Class: | NA |

SECTION 15: REGULATORY INFORMATION

U.S Federal Regulations

FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act): All pesticides are governed

EMERGENCY TELEPHONE #: 1-866-303-6952 or 1-651-632-8946

MSDS Number: 00395

Issue Date: 02/02/09

NDA = No Data Available

NA = Not Applicable

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 (Emergency Planning and Community Right-to-Know Act) Section 313: 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; **NO**
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:

Classification: NDA

Risk Phrases: NDA

Safety Phrases: NDA

SECTION 16: OTHER INFORMATION

| | |
|--------------------------|-----------------|
| Reason for issue: | New MSDS |
| Prepared by: | Ashley R. Brown |
| Issue date: | 02/02/09 |
| Supersedes date: | NA |
| MSDS number: | 00395 |

The information in this MSDS is based on data available to us as of the issue date given herein, and believed to be correct. Contact Arysta LifeScience North America LLC at (919) 678-4900 to determine if additional data and information have become available since the issue date.

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, Arysta LifeScience North America 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.