



Safety Data Sheet

Report Date 16-Feb-16

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1. Identification

Product Name : SEED SHIELD
Synonyms : None
Product Use : Broad-spectrum Seed Treatment Fungicide
Manufacturer/Supplier : Helena Chemical Company
Address : 225 Schilling Blvd. Collierville, TN 38017
General Information : 901-761-0050
Transportation Emergency Number : CHEMTREC:800-424-9300

2. Hazard Identification



Signal Word : Warning
Skin Irritation : Causes mild skin irritation
Eye Irritation : Causes eye irritation
Acute Toxicity Oral : LD50 >5,000 mg/kg (female rat)
Acute Toxicity Dermal : LD50 >5,050 mg/kg (rat)
Hazard Categories : Oral/Dermal/Inhalation Toxicity-5/5/5; Eye/Skin Irritation-2B/3
Hazard Statement : May be harmful if swallowed
May be harmful in contact with skin
Causes eye irritation
Causes mild skin irritation
May be harmful if inhaled

3. Composition / Information on Ingredients

| Component | CAS Number | Weight % |
|-------------------|------------------------------|----------|
| Azoxystrobin | 131860-33-8 | 5.24 |
| Fludioxonil | 131341-86-1 | 0.87 |
| Mefenoxam | 70630-17-0 and 69516-34-3 | 2.62 |
| Difenoconazole | 119446-68-3 | 0.35 |
| Other ingredients | Proprietary | 90.92 |

4. First Aid Measures

Eye : Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
Skin : Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
Inhalation : 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 a poison control center or doctor for further treatment advice.
Ingestion : Call a poison control center or doctor immediately for treatment advice. Rinse mouth with water. Do not induce vomiting. Do not give anything by mouth if unconscious.

Indication of Immediate Medical Attention and Special Treatment Needed : In the event of an adverse response, treatment should be directed toward control of the symptoms.



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5. Fire Fighting Measures

- Extinguishing Media** : Use dry chemical, foam or carbon dioxide extinguishing media.
- Specific Hazards Arising from the Chemical** : Irritating and possibly toxic gases may be generated by thermal decomposition or combustion.
- Special Fire Fight Proc** : Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel to prevent exposure to fire, smoke, fumes or products of combustion.

6. Accidental Release Measures

- Personal Precautions** : Keep unprotected and unnecessary personnel out of spill area.
- Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Respiratory protection not normally needed. Eyewash and emergency shower should be available in work area.
- Emergency Procedures** : Contain spilled product to prevent spreading, contaminating soil or from entering drains or bodies of water.
- Methods and Materials for Containment and Cleanup** : Cover spilled product with an absorbent material and place in suitable containers for proper disposal. Decontaminate spill area with a hard water detergent, such as Tide. Absorb wash water and place in same containers with recovered product. Hold for disposal.

7. Handling and Storage

- Precautions for Safe Handling** : Do not contaminate water, food or feed by storage, handling or disposal. Open dumping is prohibited.
- Conditions for Safe Storage** : Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to the label.

8. Exposure Controls / Personal Protection

- TLV/PEL** : No TLV or PEL established for active ingredients.
- Appropriate Engineering Controls** : General and/or local exhaust should be sufficient.
- Personal Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Respiratory protection not normally needed. Eyewash and emergency shower should be available in work area.

9. Physical and Chemical Properties

- Odor/Appearance** : Opaque yellow liquid with paint odor.
- Flash Point, °F** : >214 Degrees F.
- Boiling Point, °F** : Not available
- Melting Point(Freezing point), °C** : Not available
- Vapor Pressure, mm Hg @ 20 °C** : Not determined
- Vapor Density** : Not determined
- Solubility in Water** : Soluble
- Molecular Formula** : Not applicable, formulated mixture.
- Density, g/mL @ 25 °C** : 1.04
- Evaporation Rate(Butyl Acetate = 1)** : Not determined



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Octanol/Water Partition Coefficient : No information found
pH : No information found
Flammable Limits (approximate volume % in air) : Not applicable
Auto-ignition Temperature : 896 Degrees F.
Decomposition temperature : No information found

10. Stability and Reactivity

Reactivity : Not reactive
Chemical Stability : Stable
Hazardous Decomposition Products : May decompose at high temperatures forming toxic gases.
Hazardous Polymerization : Will not occur
Conditions to Avoid : None currently known
Incompatible Materials : None currently known.

11. Toxicological Information

Acute Toxicity (Oral LD50) : >5,000 mg/kg (female rat). May be harmful if swallowed.
Acute Toxicity (Dermal LD50) : >5,050 mg/kg (rat). May be harmful in contact with skin.
Acute Toxicity Inhalation LC50 : No LC50 data available. May be harmful if inhaled.
Likely Routes of Exposure : Eyes, skin
Skin Irritation : Causes mild skin irritation.
Eye Irritation : Causes eye irritation.
Skin Sensitization : Not a skin sensitizer.
Carcinogenic : No carcinogenic effects observed.
Chronic Effects : In a 90-day feeding study of rats, liver toxicity was observed at 2,000 ppm for Azoxystrobin. Kidney and/or liver effects occurred for the other active ingredients after exposure to high doses (>5,000 ppm).
Other Hazards : No information found

12. Ecological Information

Ecotoxicity : Azoxystrobin, Difenoconazole and Fludioxonil are highly toxic to aquatic organisms, especially aquatic invertebrates.
Persistence and Degradability : No information found
Bioaccumulative Potential : No information found
Mobility in Soil : No information found
Other Adverse Effects : No information found

13. Disposal Considerations

Waste Disposal Method : This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

14. Transport Information

UN Proper Shipping Name : Not regulated by DOT for domestic transport.
Transport Hazard Class : None



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UN Identification Number : None
Packaging Group : None
Environmental Hazards : Not a marine pollutant per 49 CFR 172.101, Appendix B.
Transport in Bulk : No information found
Special Precautions for Transportation : If shipped by air (IATA) or water (IMDG), ship as: UN3082, Environmentally Hazardous Substance, Liquid, n.o.s., (Azoxystrobin), 9, PG III, Marine Pollutant
Freight Classification : Pesticides, NOI, Fungicides, Other than Poison (NMFC Item 155050, Sub 11, Class 70)

15. Regulatory Information

National Fire Protection Association Rating :

Health: 1 Fire: 1 Reactivity: 0
Rating Level: (4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

S.A.R.A Title III Hazard Classification (Yes/No) :

Immediate(Acute) Health: Y
Delayed (Chronic) Health: N
Sudden Release of Pressure: N
Fire: N
Reactive: N

FIFRA Information : This Chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labelling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Registration Number : 100-1286-5905
FIFRA Signal Word : Caution
FIFRA Label Statement : Keep out of reach of children.
FIFRA Label Statement : Harmful if swallowed.
FIFRA Label Statement : Wash thoroughly with soap and water after handling.
FIFRA Label Statement : No additional label statements.
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16. Other Information

Data of Preparation/Revision : 16-February-2016