



Safety Data Sheet

Report Date 22-Oct-24

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1. Identification

Product Name : Mako
Synonyms : None
Product Use : Azoxystrobin+Difenoconazole Fungicide
Manufacturer/Supplier : Helena Agri-Enterprises, LLC
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 : Not classified as hazardous under 29 CFR 1910.1200 (2012)
Eye Irritation : Not classified as hazardous under 29 CFR 1910.1200 (2012)
Acute Toxicity Oral : LD50 = 310 mg/kg (rat)
Acute Toxicity Dermal : LD50 > 5,000 mg/kg (rat)
Hazard Categories : Oral Toxicity-4; STOT,Single-3; STOT,Repeated-2
Hazard Statement : Harmful if swallowed
May cause drowsiness or dizziness
May cause damage to organs through prolonged or repeated exposure

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Azoxystrobin	131860-33-8	19.8
Difenoconazole	119446-68-3	19.8
Water mixture of surfactants and non-hazardous formulation aids, including:	Proprietary	60.4
Propylene Glycol	57-55-6	



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4. First Aid Measures

- Eye** : Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for 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 to fresh air. If 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. Do not give any liquid to the person. 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.
- Indication of Immediate Medical Attention and Special Treatment Needed** : There is no specific antidote if this product is ingested. Treat symptomatically.

5. Fire Fighting Measures

- Extinguishing Media** : Use dry chemical, foam or carbon dioxide extinguishing agents. If water is used to fight fire, dike and collect runoff.
- Specific Hazards Arising from the Chemical** : None known
- Special Fire Fight Proc** : Wear self-contained breathing apparatus and full protective clothing. Evacuate nonessential personnel from the area to prevent human 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. For emergency spills, use NIOSH-approved respirator with any N, R, P or HE filter. Eyewash and emergency shower should be available in work area.
- Emergency Procedures** : Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water.
- Methods and Materials for Containment and Cleanup** : Cover entire spill with absorbent material, collect and place in compatible disposal container. Scrub area with hard water detergent (e.g., Tide or Joy). Pick up wash liquid with additional absorbent, collect and place into compatible disposal container.

7. Handling and Storage

- Precautions for Safe Handling** : Prevent eating, drinking, tobacco use and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.



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Conditions for Safe Storage : Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Store locked up. Do not store food, beverages or tobacco products in the storage area.

8. Exposure Controls / Personal Protection

TLV/PEL : No TLV or PEL established for active or inert ingredients.

Appropriate Engineering Controls : Use in good general ventilation.

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 : Yellow opaque suspension; paint smell.

Flash Point, °F : >200 Degrees F.

Boiling Point, °F : Not available

Melting Point(Freezing point), °C : Not available

Vapor Pressure, mm Hg @ 20 °C : Not available for mixture

Vapor Density : Not available

Solubility in Water : Not available for mixture

Molecular Formula : Not applicable, formulated mixture.

Density, g/mL @ 25 °C : 1.15

Evaporation Rate(Butyl Acetate = 1) : No information given

Octanol/Water Partition Coefficient : Not available

pH : 6.14 (neat)

Flammable Limits (approximate volume % in air) : Not available

Auto-ignition Temperature : 977 Degrees F.

Decomposition temperature : Not available

10. Stability and Reactivity

Reactivity : Not reactive

Chemical Stability : Stable

Hazardous Decomposition Products : Not known

Hazardous Polymerization : Will not occur

Conditions to Avoid : None known

Incompatible Materials : Not known



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11. Toxicological Information

- Acute Toxicity (Oral LD50)** : 310 mg/kg (rat). Harmful if swallowed.
- Acute Toxicity (Dermal LD50)** : >5,000 mg/kg (rat). Not classified as hazardous under 29 CFR 1910.1200 (2012).
- Acute Toxicity Inhalation LC50** : >2.56 mg/L (rat). Not classified as hazardous under 29 CFR 1910.1200 (2012).
- Likely Routes of Exposure** : Ingestion, inhalation
- Skin Irritation** : Not classified as hazardous under 29 CFR 1910.1200 (2012)
- Eye Irritation** : Not classified as hazardous under 29 CFR 1910.1200 (2012)
- Skin Sensitization** : Not classified as hazardous under 29 CFR 1910.1200 (2012)
- Carcinogenic** : The active ingredients did not show carcinogenic effects in animal experiments.
- Chronic Effects** : STOT, Repeated Exposure: May cause damage to organs through prolonged or repeated exposure. Difeniconazole: kidney and liver effects at high doses (>5000 ppm; rats). Propylene glycol: reported to cause central nervous system depression, headache, nausea.
- Other Hazards** : Specific Target Organ Toxicity (STOT), Single Exposure: May cause drowsiness or dizziness. CA PROPOSITION 65 WARNING: No listed ingredient appears on the CA PROPOSITION 65 WARNINGS listing.

12. Ecological Information

- Ecotoxicity** : No information available
- Persistence and Degradability** : No information available
- Bioaccumulative Potential** : No information available
- Mobility in Soil** : No information available
- Other Adverse Effects** : No information available

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 ground transportation. If shipped by air (IATA) or water (IMDG), classified as a marine pollutant.
- Transport Hazard Class** : None
- UN Identification Number** : None
- Packaging Group** : None
- Environmental Hazards** : Not listed as a Marine Pollutant on Appendix B to 49 CFR 172.101. Classified as a marine pollutant for international shipping.



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- Transport in Bulk** : Not regulated by DOT for bulk shipments by ground.
- Special Precautions for Transportation** : If shipped by air (IATA) or water (IMDG), ship as: UN3082, Environmentally Hazardous Substance, Liquid, n.o.s., (Azoxystrobin, Difenconazole), 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: 2 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 N
Pressure:
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** : 5905-646
- 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 and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- FIFRA Label Statement** : No additional label statements.
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16. Other Information

Data of Preparation/Revision : 22-October-2024