



## Safety Data Sheet

Report Date 10-Aug-22

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### 1. Identification

**Product Name** : HELENA FLUMIOXAZIN 4 SC  
**Synonyms** : None  
**Product Use** : Flumioxazin Herbicide  
**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 >5,000 mg/kg (rat)  
**Acute Toxicity Dermal** : LD50 >2,020 mg/kg (rabbit)  
**Hazard Categories** : Inhalation Toxicity-4; STOT,Repeated-2; Reproductive Toxicity-2  
**Hazard Statement** : Harmful if inhaled  
Suspected of damaging fertility or the unborn child  
May cause damage to organs (bone marrow) through prolonged or repeated exposure

### 3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Flumioxazin	103361-09-7	41.40
Propylene Glycol	57-55-6	6.00
Other ingredients	Non-hazardous	52.60



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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 the first 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 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.
- Ingestion** : Do not give any liquid to the person. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. If symptoms develop, get medical advice.
- Indication of Immediate Medical Attention and Special Treatment Needed** : No information available.

### 5. Fire Fighting Measures

- Extinguishing Media** : Use extinguishing media suitable for surrounding materials. Dry chemical, carbon dioxide, foam, water spray or fog.
- Specific Hazards Arising from the Chemical** : May produce gases such as fluorine compounds, and oxides of carbon and nitrogen.
- Special Fire Fight Proc** : Wear self-contained breathing apparatus and full protective gear. Evacuate area; fight fire from a safe distance upwind to avoid hazardous vapors/decomposition products. Dike and collect water used to fight fire to prevent environmental damage and runoff.

### 6. Accidental Release Measures

- Personal Precautions** : Wear appropriate protective gear for the situation.
- Protective Equipment** : Goggles or safety glasses, long-sleeved shirt and long pants, shoes plus socks, chemical-resistant waterproof gloves. Use NIOSH-approved respirator when vapors, mists or dusts exceed acceptable levels. Eyewash and emergency shower should be available in work area.
- Emergency Procedures** : Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil may necessitate removal of topsoil.
- Methods and Materials for Containment and Cleanup** : Dike spill using absorbent or impervious material such as earth, sand or clay. Pump free liquid into an appropriate container. Absorb residual with inert absorbent material. Wash entire spill area with a detergent slurry, absorb and sweep into container for disposal. Decontaminate tools and equipment following cleanup. Collect and contain contaminated absorbent/diking material for disposal.

### 7. Handling and Storage



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- Precautions for Safe Handling** : Avoid contact with eyes, skin or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and change into clean clothing.
- Conditions for Safe Storage** : Keep pesticide in original container. Store in a cool, dry, secure place. Do not put formulation or dilute spray solution into food or drink containers. Do not contaminate food or foodstuffs. Do not store or transport near feed or food. Not for use or storage in or around the home. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

### 8. Exposure Controls / Personal Protection

- TLV/PEL** : No TLV or PEL established for active ingredient (flumioxazin).
- Appropriate Engineering Controls** : Use local exhaust ventilation at the point of generation.
- Personal Protective Equipment** : Goggles or safety glasses, long-sleeved shirt, long pants, shoes plus socks, chemical-resistant waterproof gloves. Use NIOSH-approved respirator when vapors/mists/dusts exceed acceptable levels. Eyewash/emergency shower should be available.

### 9. Physical and Chemical Properties

- Odor/Appearance** : Off-white milky liquid; moderately sour odor.
- Flash Point, °F** : >212 Degrees F. (aqueous)
- Boiling Point, °F** : Not determined
- Melting Point(Freezing point), °C** : Not determined
- Vapor Pressure, mm Hg @ 20 °C** : Not determined
- Vapor Density** : Not determined
- Solubility in Water** : Not determined
- Molecular Formula** : Not applicable, formulated mixture.
- Density, g/mL @ 25 °C** : 1.157
- Evaporation Rate(Butyl Acetate = 1)** : Not determined
- Octanol/Water Partition Coefficient** : Not determined
- pH** : 6.38 (1% w/w @ 25 Deg C)
- Flammable Limits (approximate volume % in air)** : Not determined
- Auto-ignition Temperature** : Not determined
- Decomposition temperature** : Not determined

### 10. Stability and Reactivity

- Reactivity** : Not reactive
- Chemical Stability** : Stable



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- Hazardous Decomposition Products** : Under fire conditions, may produce gases such as fluorine compounds, and oxides of carbon and nitrogen.
- Hazardous Polymerization** : Will not occur
- Conditions to Avoid** : Excessive heat. Do not store near heat or flame.
- Incompatible Materials** : Strong oxidizing agents, such as chlorates, nitrates, and peroxides.

### 11. Toxicological Information

- Acute Toxicity (Oral LD50)** : >5,000 mg/kg (female rat). Not classified as hazardous under 29 CFR 1910.1200 (2012).
- Acute Toxicity (Dermal LD50)** : >5,000 mg/kg (rat). Not classified as hazardous under 29 CFR 1910.1200 (2012).
- Acute Toxicity Inhalation LC50** : >2.10 mg/L (rat). Harmful if inhaled.
- Likely Routes of Exposure** : Inhalation
- Skin Irritation** : Slightly irritating. Not classified as hazardous under 29 CFR 1910.1200 (2012).
- Eye Irritation** : Non-irritating. Not classified as hazardous under 29 CFR 1910.1200 (2012).
- Skin Sensitization** : Not a contact sensitizer.
- Carcinogenic** : No evidence of any treatment-related oncogenic effect after 18 month dietary study in mice.
- Chronic Effects** : Specific Target Organ Toxicity, Repeated Exposure: May cause damage to organs (bone marrow) through prolonged or repeated exposure.
- Other Hazards** : Reproductive Toxicity: Suspected of damaging fertility or the unborn child. CA PROPOSITION 65 WARNINGS: No listed ingredients appear on the CA PROPOSITION 65 WARNINGS listing.

### 12. Ecological Information

- Ecotoxicity** : Flumioxazin is practically non-toxic to bees and avian species. It is slightly to moderately toxic to freshwater fish and moderately to highly toxic to aquatic invertebrates.
- Persistence and Degradability** : Flumioxazin degrades rapidly in water and soil.
- Bioaccumulative Potential** : Although flumioxazin dissipates rapidly, discrete intermediates do not accumulate and the ultimate environmental products are incorporated into soil organic matter and carbon dioxide.
- 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.



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### 14. Transport Information

**UN Proper Shipping Name** : Not regulated by DOT. 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 per Appendix B to 49 CFR 172.101.

**Transport in Bulk** : No special requirements for bulk shipments by ground in the US.

**Special Precautions for Transportation** : If shipped by air (IATA) or water (IMDG), ship as: UN3082, Environmentally Hazardous Substance, Liquid, n.o.s., (Flumioxazin), 9, PG III, Marine Pollutant

**Freight Classification** : Pesticides, NOI, Herbicides, 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: Y  
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** : 5905-656

**FIFRA Signal Word** : Caution

**FIFRA Label Statement** : Keep out of reach of children.

**FIFRA Label Statement** : Harmful if inhaled or absorbed through the skin.

**FIFRA Label Statement** : Causes moderate eye irritation.

**FIFRA Label Statement** : Avoid breathing spray mist.

**FIFRA Label Statement** : Avoid contact with skin, eyes or clothing.

**FIFRA Label Statement** : No additional label statements.

**FIFRA Label Statement** : No additional label statements.

### 16. Other Information

**Data of Preparation/Revision** : 08-August-2022