

SAFETY DATA SHEET

EMERGENCY CALL: 1-800-424-9300 (CHEMTREC)



1. IDENTIFICATION

PRODUCT NAME: Alligare FLUMIGARD™ Herbicide
DESCRIPTION: A granular herbicide
EPA Reg. No.: 81927-68

COMPANY IDENTIFICATION:
Alligare, LLC
1565 5th Avenue
Opelika, AL 36801

2. HAZARD IDENTIFICATION

WARNING

- Harmful if inhaled (H332)
- May be harmful in contact with skin (H313)
- Causes eye irritation (H320)
- Suspected of damaging fertility or the unborn child (H361)
- Very toxic to aquatic life with long lasting effects (H410)



HAZARD CLASSIFICATION

Health Hazards	Category	Physical Hazards	Category
Acute Toxicity – Inhalation	4	None	-
Acute Toxicity – Dermal	5		
Eye Damage / Irritation	2B	Environmental Hazards	Category
Reproductive Toxicity	2	Hazardous to the Aquatic Environment – Acute	1
		Hazardous to the Aquatic Environment – Chronic	1

HAZARDS NOT REQUIRING CLASSIFICATION

None

PRECAUTIONARY STATEMENTS

- Avoid breathing dust. Use only outdoors or in a well-ventilated area. (P261+P271)
- Wash hands thoroughly after handling. (P264)
- Avoid release to the environment in a manner not in accordance with the product label. (P273)
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. (P305+P351+P338+P337+P313)
- IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison control center or doctor if you feel unwell. (P304+P340+P312)
- IF ON SKIN: Call a poison control center or doctor if you feel unwell. (P302+P312)
- Collect spillage. (P391)
- Dispose of contents / container in accordance with local regulations. Refer to the product label for specific disposal instructions. (P501)

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Common Name</u>	<u>Chemical Name</u>	<u>CAS #</u>	<u>Composition</u>
Flumioxazin	(2-[7-flouro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1H-isoindole-1,3(2H)-dione)	103361-09-7	51.0%

4. FIRST AID MEASURES

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

IF INHALED: 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.

IF ON SKIN OR CLOTHING: 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.

IF IN 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.

IF SWALLOWED: Call a poison control center or doctor immediately 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.

5. FIREFIGHTING MEASURES

Flash Point: No data available

Flammability Limits: Not determined

Fire and Explosion Hazards: May thermally decompose in fire releasing irritating and toxic gases.

Means of Extinction: Use water fog or fine spray, CO₂, foam or dry chemical.

Fire Fighting Instructions: Does not burn, fight surrounding fire as appropriate. Evacuate area and fight fire upwind from a safe distance to avoid possible hazardous fumes and decomposition products. Dike runoff and do not allow runoff to enter sewers, storm drains or waterways. Foam and dry chemical extinguishing systems are preferred to prevent environmental damage from excessive water runoff. Decontaminate PPE and firefighting equipment before reuse.

Firefighting Equipment: Self-contained breathing apparatus with full face piece and full bunker gear.

Hazardous Combustion Products: Nitrogen and fluorine compounds may result.

NFPA Ratings: Health: 1 / Flammability: 1 / Reactivity: 0

6. ACCIDENTAL RELEASE MEASURES

Clean up spills immediately observing the precautions in Section 8 of this SDS. Isolate the hazard area and keep unnecessary and unprotected personnel from entering. Keep upwind of spill and ventilate area if possible. Prevent material from contaminating soil or from entering sewage and drainage systems and bodies of water.

Spills: Reduce airborne dust and vacuum or sweep up material and place in a chemical waste container. Wash spill area with soap and water, and pick up wash liquid with absorbent material and place in a chemical waste container.

7. HANDLING AND STORAGE

Handling: Avoid breathing dust and spray mist. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

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 store or transport near feed or food. Not for use or storage in or around the home. Do not contaminate water, food or feed by storage, disposal or cleaning equipment.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.

Protective Clothing: Applicators and other handlers must wear: long-sleeved shirt and long pants, socks, shoes and waterproof gloves.

General: Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light brown granules	pH:	6-7
Odor:	Slight	Kinematic Viscosity:	no data available
Melting / Freezing point:	no data available	Solubility:	Dispersible
Boiling Point / Boiling Range:	no data available	Partition coefficient:	no data available
Flammability:	not flammable	Vapor Pressure:	no data available
Flammability Limits:	no data available	Specific Gravity:	no data available
Flash Point:	no data available	Bulk Density:	0.6 g/cm ³ (37 lbs/ft ³)
Auto-ignition Temperature:	no data available		
Decomposition Temperature:	no data available		

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Temperature extremes and direct sunlight.

CHEMICAL STABILITY: Stable under normal use and transportation situations.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

INCOMPATIBILITY WITH OTHER MATERIALS: Strong oxidizing agents.

HAZARDOUS REACTIONS: None known.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

The following information is for the technical material or a similar formulation:

ORAL TOXICITY (rat LD₅₀): > 5,000 mg/kg

DERMAL TOXICITY (rat LD₅₀): > 2,000 mg/kg

INHALATION TOXICITY (rat LC₅₀): > 2.18 mg/L (4-hour)

EYE IRRITATION: Brief and/or minor irritation

SKIN IRRITATION: Brief and/or minor irritation

SKIN SENSITIZATION: Not a sensitizer

CARCINOGENICITY:

IARC: Not listed US NTP: Not listed ACGIH: Not listed

MUTAGENIC TOXICITY: No evidence of mutagenic effects during *in vivo* or *in vitro* studies.

REPRODUCTIVE TOXICITY: Reproductive toxicity was observed in F1 males, P1 females and F1 females at 300 ppm flumioxazin technical, the highest dose tested and a dose that also produced signs of systemic toxicity. Toxicity was also observed in the F1 and F2 offspring at doses of 200 ppm and greater.

DEVELOPMENTAL TOXICITY: Flumioxazin Technical produces developmental toxicity in rats in the absence of maternal toxicity at doses of 30 mg/kg/day by the oral route and 300 mg/kg/day by the dermal route. The developmental effects noted consisted primarily of decreased number of live fetuses and fetal weights, cardiovascular abnormalities, wavy ribs and decreased number of ossified sacrococcygeal vertebral bodies. The developmental NOEL in the rat oral and dermal developmental toxicity studies were 10 and 100 mg/kg/day, respectively. The response in rabbits was very different from that in rats. No developmental toxicity was noted in rabbits at doses up to 3000 mg/kg/day, a dose well above the maternal NOEL of 1000 mg/kg/day.

Mechanistic studies indicate that the effects seen in the rat are highly unlikely to occur in the human and that flumioxazin would not be a developmental toxicant in the human.

12. ECOLOGICAL INFORMATION

This product is toxic to non-target plants and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to non-target plants and aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate. Refer to the product label for additional information.

The following is for the active ingredient, Flumioxazin:

Rainbow trout (96-hr LC ₅₀):	2.3 mg/L	Bobwhite Quail (Dietary LC ₅₀):	> 5,620 ppm
Sheepshead minnow (96-hr LC ₅₀):	> 4.7 mg/L	Bobwhite Quail (48-hr oral LD ₅₀):	> 2,250 ppm
Daphnia magna (48-hr LC ₅₀):	> 5.5 mg/L	Bees (acute contact):	> 105 µg/bee
Mysid shrimp (96-hr LC ₅₀):	0.23 mg/L		
Rainbow trout (NOEC):	> 7.7 µg/L, < 16 µg/L		
Mysid shrimp (NOEC):	> 15 µg/L, < 27 µg/L		
Daphnia magna (NOEC):	> 52 µg/L, < 99 µg/L		

13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by disposal.

PESTICIDE DISPOSAL: Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Refer to the product label for specific container handling instructions.

14. TRANSPORT INFORMATION

UN Number:	UN3077
Proper Shipping Name:	Environmentally hazardous substance, solid, N.O.S. (contains Flumioxazin)
Transport Hazard Class:	9
Packing Group:	III
Hazard Zone:	A
Marine Pollutant:	Yes ¹
Hazardous Substance RQ:	None
Labels / Placards:	US-DOT: Class 9 Environmentally Hazardous Substance ² IMDG, IATA: Class 9 Environmentally Hazardous Substance ³
Emergency Guide:	171 (NAERG – North American Emergency Response Guide)
¹ Marine Pollutant Note:	Ground-only shipments are excluded from Marine Pollutant labeling requirements as per 49CFR§172.101 Appendix B(4). For any shipments involving all or part of the transport by vessel, the shipment must be classified as a Marine Pollutant unless a limited quantity exemption applies (see note 3 below).
² US-DOT Note:	Not regulated for “ground only” shipments.
³ IMDG / IATA Note:	Not regulated when shipped in single or inner packaging ≤ 11 lbs. (5 kg) in strong outer packaging.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

FIFRA –

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling 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. The following is the hazard information as required on the pesticide label:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if inhaled or absorbed through the skin. Causes moderate eye irritation. Avoid breathing dust and spray mist. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse. Wear long-sleeved shirt and long pants, socks, shoes and waterproof gloves.

See inside label booklet for additional Precautionary Statements and Directions for Use including Storage and Disposal instructions.

ENVIRONMENTAL HAZARDS

This product is toxic to non-target plants and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to non-target plants and aquatic organisms in neighboring areas. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

This pesticide is toxic to plants and should be used strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

Under some conditions this product may have a potential to run off to surface water or adjacent land. Where possible, use methods which reduce soil erosion, including no-till, limited till and contour plowing; these methods also reduce pesticide run-off. Use of vegetation filter strips along rivers, creeks, streams, wetlands or on the downhill side of fields where run-off could occur will minimize water run-off and is recommended.

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide. This product is excluded from listing requirements under EPA/TSCA.

SARA Title III – Section 302 Extremely Hazardous Substances

Not listed

SARA Title III – Section 311/312 Hazard Categories

Immediate

SARA Title III – Section 312 Threshold Planning Quantity

N/A

SARA Title III – Section 313 Reportable Ingredients

None

CERCLA –

Not listed

CALIFORNIA PROP 65 –

This product does not contain any chemicals known to the State of California to cause cancer or reproductive harm.

CANADA –

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

16. OTHER INFORMATION

THIS INFORMATION IN THIS SDS IS BASED ON DATA AVAILABLE AS OF THE REVISION DATE GIVEN HEREIN, AND BELIEVED TO BE CORRECT. CONTACT ALLIGARE, LLC TO CONFIRM IF YOU HAVE THE MOST CURRENT MSDS. JUDGMENTS AS TO THE SUITABILITY OF THE INFORMATION HEREIN FOR THE INDIVIDUAL'S OWN USE OR PURPOSES IS NECESSARILY THE INDIVIDUAL'S OWN RESPONSIBILITY. ALTHOUGH REASONABLE CARE HAS BEEN TAKEN IN THE PREPARATION OF SUCH INFORMATION, ALLIGARE, 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.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

SDS Version: 2.0

Effective Date: 03/28/2023