

# SAFETY DATA SHEET

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



## 1. IDENTIFICATION

**PRODUCT NAME:** MAINLINE Herbicide  
**DESCRIPTION:** A liquid herbicide.  
**EPA Reg. No.:** 81927-84

**COMPANY IDENTIFICATION:**  
**Alligare, LLC**  
1565 5<sup>th</sup> Avenue  
Opelika, AL 36801

## 2. HAZARD IDENTIFICATION

### WARNING

Suspected of damaging fertility or the unborn child (H361)  
Harmful if inhaled (H332)  
Very toxic to aquatic life with long lasting effects (H400+H410)



### HAZARD CLASSIFICATION

Health Hazard	Category	Physical Hazards	Category
Reproductive toxicity	2	None	-
Acute, inhalation toxicity	4		
Environmental Hazards	Category		
Hazardous to the aquatic environment, short-term	1		
Hazardous to the aquatic environment, long-term	1		

### HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)

DO NOT mix or allow coming in contact with oxidizing agent. Hazardous chemical reaction may occur.

### PRECAUTIONARY STATEMENTS

Obtain, read and follow all safety instructions before use. Avoid breathing mist/spray. Use only outdoor or in a well-ventilated area. Wear protective clothing. (P203+P261+P271+P280)

If exposed or concerned, get medical advice. (P318)

**IF INHALED:** Remove person to fresh air and keep comfortable for breathing. Get medical help. (P304+P340+P317)

Store locked up. (P405)

Avoid release to the environment not in accordance with the product label. Collect spillage. (P273+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

Common Name	Chemical Name	CAS #	Composition
Flumioxazin	2-[7-Fluoro-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	22.06%
Ammonium Salt of Imazapic	(±)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-methyl-3-pyridinecarboxylic acid	104098-49-9	11.67%

**NOTE:** Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

## 4. FIRST AID MEASURES

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL NATIONAL POISON CONTROL AT 1-800-222-1222 OR CHEMTREC® TOLL FREE 1-800-424-9300 or 1-703-527-3887 24 hours per day, 7 days per week.

**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 treatment advice.

## 5. FIREFIGHTING MEASURES

**Flash Point (CC):** Not available.

**Flammable Limits (LFL-UFL):** Not available.

**Fire and Explosion Hazards:** Not available.

**Extinguishing Medium:** Foam, dry extinguishing media, CO<sub>2</sub>, water spray or fog

**Fire Fighting Equipment:** Firefighters should be equipped with self-container positive pressure breathing apparatus and full bunker gear.

**Fire Fighting Instructions:** 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.

**Hazardous Combustion Products:** Thermal decomposition may produce gases such as fluorine compounds and oxides of carbon and nitrogen.

**NFPA Ratings:** Health – 2 / Flammability – 1 / Reactivity - 0

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Spill Cleanup:** Dike spill using suitable absorbent or impervious materials such as sand or clay. Collect and contain contaminated absorbent and place in an appropriate container for disposal. Pump any free liquid into an appropriate closed container and decontaminate tools and equipment following cleanup. Collect washings for disposal.

**Environmental Precautions:** Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

## 7. HANDLING AND STORAGE

**Handling:** Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. 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 contaminate food or foodstuffs. DO NOT store or transport near feed or food. Not for use or storage in or around the home. For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC (800) 424-9300.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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

**Exposure guidelines:**

Component	OSHA		ACGIH		Unit
	TWA	STEL	TWA	STEL	
Flumioxazin	Not established	Not established	Not established	Not established	
Propylene glycol	10 (WEEL)	Not established	Not established	Not established	mg/m <sup>3</sup>

**Protective Clothing:** Applicators and other handlers must wear long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material, shoes and socks.

**General:** Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	opaque liquid	<b>Dynamic viscosity:</b>	327-18,800 cP at 24°C
<b>Odor:</b>	mild bitter		280-16,16640 cP at 39°C
<b>Melting/freezing point:</b>	not available		not available
<b>Boiling point/Boiling range:</b>	not available		not available
<b>Flammability:</b>	not available	<b>Solubility:</b>	not available
<b>Flammability limits (upper/lower):</b>	not available	<b>Partition coefficient:</b>	9.26 lb/ gal (1.11 g/cm <sup>3</sup> )
<b>Flash point (cc):</b>	not available	<b>Vapor pressure:</b>	not available
<b>Auto-ignition temperature:</b>	not available	<b>Density:</b>	not available
<b>Decomposition temperature:</b>	not available	<b>Relative vapor density:</b>	
<b>pH:</b>	5-7	<b>Particle characteristics:</b>	

## 10. STABILITY AND REACTIVITY

**CONDITIONS TO AVOID:** Excessive heat, fire.

**CHEMICAL STABILITY:** Thermally stable at typical use temperatures.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Not available.

**INCOMPATIBILITY WITH OTHER MATERIALS:** The only significant temperature changes were observed when the test substance was mixed with iron powder and potassium permanganate. This is due to the enthalpy of mixing and is a result of oxidation.

**HAZARDOUS POLYMERIZATION:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

Information presented below is from testing done on an identical or substantially similar product:

**ORAL TOXICITY (rat LD<sub>50</sub>):** > 5,000 mg/kg (EPA Category IV)

**DERMAL TOXICITY (rat LD<sub>50</sub>):** > 5,000 mg/kg (EPA Category IV)

**INHALATION TOXICITY (rat LC<sub>50</sub>):** >2.24 mg/L (4-hour) (EPA Category IV) (no mortalities)

**EYE IRRITATION:** Minimally irritating to the eye (EPA Category IV)

**SKIN IRRITATION:** Slightly irritating (EPA Category IV)

**SKIN SENSITIZATION:** Not a skin sensitizer (Guinea Pigs)

**CARCINOGENICITY:**

**EPA:** Not likely to be carcinogenic to humans (flumioxazin)

**ACGIH:** Not Listed

**NTP:** Not Listed

**IARC:** Not listed

**OSHA:** Not Listed

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

**REPRODUCTIVE TOXICITY / DEVELOPMENTAL TOXICITY / TERATOGENICITY:** Reproductive effects were observed in rats exposed to high levels of flumioxazin technical. Flumioxazin technical produced birth defects in the offspring of female rats.

**OTHER TOXICITY:** Compound related effects of flumioxazin technical noted in rats following subchronic exposures at high dose levels were hematotoxicity including anemia, and increases in liver, spleen, heart, kidney and thyroid weights. In dogs, the effects produced at high dose levels included a slight prolongation in activated partial thromboplastin time, increased cholesterol and phospholipid, elevated alkaline phosphatase, increased liver weights and histological changes in the liver. The lowest no-observable-effect-level (NOEL) in subchronic studies was 30 ppm in the three-month toxicity study in rats. Repeated exposures to flumioxazin technical in animals have produced anemia and other blood formation changes, organ weight changes and changes in blood chemistry. Flumioxazin technical did not produce cancer in life-time feeding studies in laboratory animals.

## 12. ECOLOGICAL INFORMATION

Flumioxazin technical 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.

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

This product is toxic to non-target plants and aquatic invertebrates.

### The following information is for the active ingredient, flumioxazin:

Rainbow Trout (96hr LC<sub>50</sub>): 2.3 mg/L  
Daphnia (96hr LC<sub>50</sub>): >5.5 mg/L  
Shrimp (96hr LC<sub>50</sub>): 0.23 mg/L  
Honeybee (contact LC<sub>50</sub>): 105 µg/bee  
Quail/mallard (oral LD<sub>50</sub>): >2,250 mg/kg  
Quail/mallard (dietary LC<sub>50</sub>): >5,620 ppm  
Aquatic plants (EC<sub>50</sub>): 0.00102 ppm

### The following ecotoxicological information is for the active ingredient (imazapic):

Mallard and Bobwhite Quail (LD<sub>50</sub>): > 2,150 mg/kg  
Rainbow Trout and Bluegill (LC<sub>50</sub>): > 100 mg/l  
Daphnia (LC<sub>50</sub>): > 100 mg/l  
Bees (LD<sub>50</sub>): > 100 µg/bee

## 13. DISPOSAL CONSIDERATIONS

**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 and refillable containers. Refer to the product label for specific container handling instructions.

## 14. TRANSPORT INFORMATION

<b>UN Number:</b>	UN3082
<b>Proper Shipping Name:</b>	Environmentally hazardous substance, liquid, N.O.S. (contains flumioxazin, imazapic)
<b>Transport Hazard Class:</b>	9
<b>Packing Group:</b>	III
<b>Hazard Zone:</b>	None
<b>Marine Pollutant:</b>	Yes <sup>1</sup>
<b>Hazardous Substance RQ:</b>	None
<b>Labels / Placards:</b>	US-DOT: Class 9 Environmentally Hazardous Substance <sup>2</sup> IMDG, IATA: Class 9 Environmentally Hazardous Substance <sup>3</sup>
<b>Emergency Guide:</b>	171 (NAERG – North American Emergency Response Guide)

<sup>1</sup> **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).

<sup>2</sup> **US-DOT Note:** Not regulated for “ground only” shipments.

<sup>3</sup> **IMDG / IATA Note:** Not regulated when shipped in single or inner packaging ≤ 1.3 gal. (5 L).

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

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

#### ENVIRONMENTAL HAZARDS

This pesticide is toxic to plants. Use 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.

**NON-TARGET ORGANISM ADVISORY STATEMENT:** This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

**GROUNDWATER ADVISORY STATEMENT:** This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

**SURFACE WATER ADVISORY STATEMENT:** This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water.

This product is classified as having high potential for reaching surface water via runoff for several months or more after application.

#### PHYSICAL OR CHEMICAL HAZARDS

**DO NOT** mix or allow coming in contact with oxidizing agent. Hazardous chemical reaction may occur.

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 (acute), Delayed (chronic)

#### SARA Title III – Section 312 Threshold Planning Quantity

N/A

#### SARA Title III – Section 313 Reportable Ingredients

None

#### CERCLA –

None

#### CALIFORNIA PROP 65 STATUS –

This product does not contain any chemical known to the State of California to cause cancer or other 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: 1.1

Effective Date: 03/01/2023