



**OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION**

WASHINGTON, D.C. 20460

January 16, 2024

Mike Kellog  
Agent  
Alligare, LLC  
c/o Pyxis Regulatory Consulting Inc.  
4110 136<sup>th</sup> St. Ct. NW  
Gig Harbor, WA 98332

Subject: Notification per PRN 98-10 – Adding mixing language  
Product Name: Flumi-Imazapyr  
EPA Registration Number: 81927-85  
Application Date: November 29, 2023  
Case Number: 00492000

Dear Mr. Kellog:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped “NOTIFICATION” and placed in our records.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If you have any questions, please contact Lindsay DeMers via email at [demers.lindsay@epa.gov](mailto:demers.lindsay@epa.gov).

Page 2 of 2  
EPA Reg. No. 81927-85  
Case No. 00492000

Sincerely,

A handwritten signature in cursive script, appearing to read "Lindsey Roberts".

for Heather McFarley, Product Manager 24  
Fungicide-Herbicide Branch  
Registration Division 7505T  
Office of Pesticide Programs

[Note to reviewer: [Text] in brackets denotes optional text].

[Note to reviewer: {Text} in braces denotes where in the final label text will appear].

**{[BOOKLET FRONT PANEL LANGUAGE]}**

<b>FLUMIOXAZIN</b>	<b>GROUP</b>	<b>14</b>	<b>HERBICIDE</b>
<b>IMAZAPYR</b>	<b>GROUP</b>	<b>2</b>	<b>HERBICIDE</b>

**Flumi-Imazapyr**

**[Alternate Brand Name: BALLAST™ Herbicide]**

FOR NON-SELECTIVE TOTAL VEGETATION CONTROL ON ROADSIDES, HIGHWAY MEDIANS, RAILROAD CROSSINGS, ROADS, IMPROVED ROADSIDE AREAS, GRAVEL SHOULDERS, INDUSTRIAL AND UTILITY PLANT SITES, UTILITY SUBSTATIONS, PETROLEUM TANK FARMS, PUMPING INSTALLATIONS, STORAGE AREAS, ABOVE GROUND PIPELINES, RAILROAD BEDS, AND RAILROAD YARDS WHERE BARE GROUND IS DESIRED.

**ACTIVE INGREDIENTS:**

Imazapyr, isopropylamine salt..... 36.11%  
Flumioxazin ..... 10.78%

**OTHER INGREDIENTS:** ..... 53.11%

**TOTAL:** ..... 100.00%

Flumi-Imazapyr is a soluble concentrate formulation.

This product contains:

1.0 lb. flumioxazin per gallon

2.75 lbs. of imazapyr acid equivalent per gallon or 29.45% of product

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand the label, find someone to explain it to you in detail.)

[See] [inside] [label] [booklet] [for] [First Aid][,] [additional] [Precautionary Statements][,] [and] [Directions for Use] [including] [Storage and Disposal] [instructions][.]

**[For ≤ 5 Gallon Containers:] [Shake Well Before Use]**

**[For ≥ 5 Gallon Containers:] [Shake Well, Agitate or Recirculate Before Use]**

**EPA Reg. No.** 81927-85

**EPA Est. No.**

**Manufactured for:**

Alligare, LLC  
1565 5th Avenue  
Opelika, AL 36801

**NOTIFICATION**

81927-85

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

01/16/2024

**Net Contents:**

## {[LANGUAGE INSIDE BOOKLET]}

FIRST AID	
<b>IF IN EYES:</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li><li>• Remove contact lenses if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center (1-800-222-1222) or doctor or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.	

### 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.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes and socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### USER SAFETY RECOMMENDATIONS

**Users should:**

- Remove clothing/PPE 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.

### ENVIRONMENTAL HAZARDS

If not used in accordance with directions on the label, 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 water adjacent to treated 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. 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. 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 strips along rivers, creeks, streams, wetlands or on the downhill side of fields where run-off could occur will minimize water run-off.

**DO NOT** discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. **DO NOT** discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

**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.

### PHYSICAL OR CHEMICAL HAZARDS

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

Spray solutions of **Flumi-Imazapyr** must be mixed, stored, and applied only in stainless steel, fiberglass, plastic, and plastic-lined steel containers.

**DO NOT** mix, store, or apply **Flumi-Imazapyr** or spray solutions of **Flumi-Imazapyr** in unlined steel (except stainless steel) containers or spray tanks.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read the entire label before using this product. Use strictly in accordance with label precautionary statements and directions, and with applicable state and federal regulations.

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural crops on farms, forests, nurseries, or greenhouses.

Keep all unprotected persons out of operating areas, or vicinity where there may be drift.

**DO NOT** enter or allow other to enter the treated area until sprays have dried.

### RISKS OF USING THIS PRODUCT

The Buyer and User (referred to collectively herein as "Buyer") of this product must be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as

weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Alligare. The Buyer must be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that the additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN **DO NOT APPLY THIS PRODUCT**. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND TO THE FULLEST EXTENT ALLOWED BY LAW, AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

Alligare shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

See also **CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY** sections of the label for additional information.

### **WEED RESISTANCE MANAGEMENT**

For resistance management, please note that **Flumi-Imazapyr** contains both a Group 14/Flumioxazin and a Group 2/Imazapyr herbicide. Any weed population may contain plants naturally resistant to Group 14 and/or Group 2 herbicides. The resistant individuals may dominate the weed population if these herbicides are used repeatedly in the same field. Follow appropriate resistance-management strategies.

To delay herbicide resistance, take one or more of the following steps:

- Avoid the consecutive use of **Flumi-Imazapyr** or other target site of action Group 14/Group 2 herbicides that might have a similar target site of action, on the same weed species.
- Use tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Base herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Scout use sites prior to application to identify the weed species present and their growth state to determine if the intended application will be effective.
- Scout use sites after application to verify that the treatment was effective and to monitor weed populations for early signs of resistance development.
- Contact your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

Suspected herbicide-resistant weeds may be identified by these indicators:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds.
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

Report any incidence of non-performance of this product against a particular weed species to your Alligare, LLC retailer, representative or call 888-252-4427. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemicals means to remove escapes, as practical, with the goal of preventing further seed production.

## MANDATORY SPRAY DRIFT

### Aerial Applications

- **DO NOT** release spray at a height greater than 10 ft above the vegetative canopy unless a greater application height is necessary for pilot safety.
- Applicators must select nozzles and pressure that deliver coarse or coarser droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE 572).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

### Ground Applications

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or vegetative canopy.
- Applicators must select nozzles and pressure that deliver medium to coarse droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE 572).
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

### Boom-less Ground Applications:

- Applicators must select nozzles and pressure that deliver medium to coarse droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE 572).
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

### Spray Drift Advisories

- THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.
- BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.
- IMPORTANCE OF DROPLET SIZE  
An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.  
Controlling Droplet Size - Ground Boom
  - Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
  - Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
  - Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.Controlling Droplet Size - Aircraft
  - Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.
- BOOM HEIGHT - Ground Boom  
Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the target area and have minimal bounce.
- RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift. When applying aerially, do not release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.

- **SHIELDED SPRAYERS**  
Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.
- **TEMPERATURE AND HUMIDITY**  
When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.
- **TEMPERATURE INVERSIONS**  
Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.
- **WIND**  
Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.**  
Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.
- **Boom-less Ground Applications:**  
Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.
- **Handheld Technology Applications:**  
Take precautions to minimize spray drift.

## **PRODUCT INFORMATION**

**Flumi-Imazapyr** may only be applied to: roadsides, highway medians, railroad crossings, roads, improved roadside areas, gravel shoulders, industrial and utility plant sites, utility substations, petroleum tank farms, pumping installations, storage areas, above ground pipelines, railroad beds, and railroad yards for non-selective total vegetation control where bare ground is desired.

### **USE PRECAUTION**

Keep from contact with fertilizers, insecticides, fungicides, and seeds to prevent unintentional exposure of desirable vegetation to this product.

### **USE RESTRICTIONS**

- **DO NOT** apply more than 48 fl. oz. (0.375 lb. ai flumioxazin, 1.0 lb. ae imazapyr) of this product per acre per application.
- **DO NOT** apply more than 68 fl. oz. (0.54 lb. ai flumioxazin, 1.5 lbs. ae imazapyr) of this product per acre per year.
- **DO NOT** make more than 2 applications per year.
- **DO NOT** re-apply within 30 days.
- **DO NOT** apply when weather conditions favor spray drift from treated areas.
- **DO NOT** incorporate into soil after application.
- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** make applications by fixed wing aircraft.
- **DO NOT** apply to moist or wet desirable plant foliage.
- **DO NOT** apply within 300 feet of non-dormant pome or stone fruit crops.
- **DO NOT** use on food or feed crops.
- **DO NOT** use on Christmas trees.
- **DO NOT** apply to water used for irrigation.



- **DO NOT** apply or drain or flush equipment on or near sensitive desirable plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- **DO NOT** apply to lawns.
- **DO NOT** side trim desirable vegetation with this product unless severe injury and plant death can be tolerated.
- Prevent drift of spray to desirable plants.
- Clean application equipment after using this product by thoroughly flushing with water.
- Treatment of powdery, dry soil or light sandy soil when there is little to no likelihood of rainfall soon after may result in off target movement and possible damage to actively growing susceptible crops when soil particles are moved by wind or water. **DO NOT** apply when these soil and environmental conditions are present.

### TO MAINTAIN BARE GROUND NON-CROP AREAS

**Flumi-Imazapyr** herbicide offers residual and postemergence control of susceptible broadleaf and grass weeds as well as additional mode of action to assist in the control of ALS (acetolactate synthase) resistant weeds. Using higher rates will extend residual control. High amounts of rainfall and high temperatures will decrease the length of residual control.

Apply **Flumi-Imazapyr** at 32 to 48 fl. oz. (0.25-0.375 lb. ai flumioxazin, 0.69-1.0 lb. ae imazapyr) broadcast per acre. For best preemergence residual activity, **Flumi-Imazapyr** must be activated by rainfall or irrigation and applied when soil temperatures are cool. Make applications to take advantage of normal rainfall patterns (minimum of ½ inch) and cooler temperatures. Moisture activation occurring within 2-3 weeks after application will provide the best results.

### TANK MIXES

**Flumi- Imazapyr** can be mixed with other herbicides for additional control in noncrop areas including those listed in Table 1 below as well as other appropriately labeled products.

To create bare ground areas where emerged or established weeds are present, tank mix with an appropriately labeled glyphosate product to improve initial burndown.

**Table 1. Tank Mix Partners**

Brand Name	EPA Reg. No.	Active Ingredient(s)
Glyphosate 4 Plus	81927-9	Glyphosate, isopropylamine salt
Alligare Dryphosate 75SG	81927-60	Glyphosate, ammonium salt
Mojave 70 EG	81927-25	Diuron / Imazapyr
Diuron 80 DF	81927-12	Diuron
Triclopyr 3SL	81927-13	Triclopyr, triethylamine salt
MSM 60 DF	81927-7	Metsulfuron
Triumph 22K	81927-18	Picloram-potassium
Whetstone	81927-82	Aminopyralid-tripromine

To test for the compatibility of any other herbicides not listed in Table 1 with **Flumi-Imazapyr**, use a jar test. Mixing **Flumi-Imazapyr** with 2,4-D or other phenoxy-type herbicides could lead to reduced control of perennial grass weeds.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

## **APPLICATION INFORMATION**

### **PREEMERGENCE APPLICATION**

**Flumi-Imazapyr** must be activated by rainfall or irrigation and applied when soil temperatures are cool for best preemergence and residual activity. Make applications to take advantage of normal rainfall patterns (minimum of ½ inch) and cooler temperatures. For best results, moisture for activation should occur within 2 to 3 weeks after application. To provide a broader spectrum of residual weed control, **Flumi-Imazapyr** may be applied in a tank mixture with other registered preemergence herbicides. When weeds are present at application, include a labeled burn down herbicide such as glyphosate, paraquat, or glufosinate with an appropriate adjuvant.

### **POSTEMERGENCE APPLICATION**

For best results, make postemergence applications of **Flumi-Imazapyr** to young, actively growing weeds and include a spray adjuvant. Refer to the label of the tank mix partner(s) for any additional use instructions or restrictions. Follow the most restrictive labeling of any tank mix component products.

## **ADDITIVES**

### **POSTEMERGENCE**

When applying this product after weed emergence, mix with an agronomically approved adjuvant. Use a crop oil concentrate which contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant containing at least 80% active ingredient when applying this product as part of a postemergence weed control program. Verify mixing compatibility by a jar test before using.

A spray grade nitrogen source (either ammonium sulfate at 2.0 to 2.5 pounds per acre or a 28 to 32% nitrogen solution at 1 to 2 quarts per acre) may be added to the spray mixture along with a crop oil concentrate or non-ionic surfactant to enhance weed control. The addition of a nitrogen source does not replace the need for crop oil concentrate or non-ionic surfactant.

### **JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND THIS PRODUCT**

When using this product and an adjuvant, including in stale seed bed, layby, hooded/shielded or reduced tillage situations, perform a jar test before mixing commercial quantities of this product, when using for the first time, when using new adjuvants or when a new water source is being used.

1. Add 1 pt. of the water to a quart jar. Use water from the same source and temperature as which will be used in the spray tank mixing operation.
2. Add 1 ml of this product to the quart jar for every 3 fl. oz of this product per acre being applied (4 mL if 12 fl. oz per acre is the desired rate of this product), gently mix until product goes into suspension.
3. Add 60 mL of crop oil to the quart jar or 1 ml of non-ionic surfactant if it is being used in place of oil, gently mix.
4. If nitrogen is being used, add 16 mL of the 28 to 32% nitrogen source to the quart jar. If ammonium sulfate is being used, add 19 g AMS to the quart jar in place of the 28 to 32% nitrogen.
5. Place a cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
6. An ideal tank mix combination will be uniform. If any of the following conditions are observed question the choice of adjuvant:
  - a) Layer of oil or globules on the mixture's surface.
  - b) Flocculation: Fine particles in suspension or as a layer on the bottom of the jar.
  - c) Clabbering: Thickening texture (coagulated) like gelatin.

## APPLICATION EQUIPMENT

Application equipment must be clean and in good repair. Nozzles must be uniformly spaced on boom and frequently checked for accuracy. **Flumi-Imazapyr** may be applied using helicopters, ground operated sprayers, low-volume hand-operated spray equipment including back-pack and pump-up sprayers. Observe all cautions and limitations in the labels of products used in combination with **Flumi-Imazapyr**

### BROADCAST APPLICATION

Apply this product, and this product's tank mixes, with ground equipment using standard commercial sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume. Use a minimum of 15 gallons of spray solution per acre to ensure uniform coverage. Use higher volumes when weeds have emerged.

### HANDGUN APPLICATION

Applications may also be made using a handgun sprayer. Use a spray volume of at least 40 gallons per acre to ensure uniform coverage.

### AERIAL APPLICATION

To obtain satisfactory weed control with aerial applications of this product, uniform coverage must be obtained. Avoid spraying this product within 200 feet of dwellings, adjacent sensitive crops, or environmentally sensitive areas. To obtain satisfactory application and drift, the following directions must be observed:

#### Volume Pressure

Use this product in 5 to 10 gallons of water per acre with a maximum spray pressure of 40 PSI. Application at less than 5 gallons per acre will provide inadequate weed control. Higher gallonage applications provide more consistent weed control.

#### Nozzles and Nozzle Operation

Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles, including diaphragm type nozzles to avoid unwanted discharge of spray solution. The nozzle must be directed toward the rear of the aircraft, at an angle between 0° and 15° downward. **DO NOT** place nozzles on the outer 25% of the wings or rotors.

IMPORTANT: **DO NOT** make applications by fixed wing aircraft.

### SPRAYER PREPARATION

**Important:** Thoroughly clean spray equipment, including all tanks, hoses, booms, screens, and nozzles. **DO NOT use spray equipment used to apply this product to apply other materials to any desirable plant foliage.** Before applying this product, start with clean, well maintained application equipment. Clean the spray tank, as well as all hoses and booms to ensure no residue from the previous spraying operation remains in the sprayer. Some pesticides, including but not limited to the sulfonylurea and phenoxy herbicides, are active at very small amounts and can cause crop injury when applied to susceptible crops. Clean the spray equipment according to the manufacturer's directions for the last product used before the equipment is used to apply this product. If two or more products were tank mixed prior to this product's application, follow the most restrictive cleanup procedure.

### MIXING INSTRUCTIONS

1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water.
2. Agitate solution. Ensure agitation creates a rippling or rolling action on the water surface.
3. If tank mixing this product with other labeled herbicides, add water soluble formulations first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.

4. Add any required adjuvants.
5. Fill spray tank to desired level with water. **Continue agitation until all spray solution has been applied.**
6. Mix only the amount of spray solution that can be applied the day of mixing. Apply this product within 48 hours of mixing.

[For Best Results - Mix with water having pH of 5 to 7. If pH is higher than 7, use an appropriate buffer to reduce pH to desirable range. Fill clean spray tank 1/2 full of desired level with water and add buffering agent if necessary.](#)

### **SPRAYER CLEANUP**

If spray equipment is dedicated to herbicide applications, use the following steps to clean the spray equipment:

- Completely drain the spray tank and rinse the application equipment thoroughly, including the inside and outside of the tank and all in-line screens.

If spray equipment will be used for purposes other than applying herbicides, it must be thoroughly cleaned following application of this product. Use the following steps to clean the spray equipment:

- Completely drain the spray tank, rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
- Fill the spray tank with clean water and flush all hoses, booms, screens, and nozzles.
- Top off tank, add suitable commercial spray tank cleaning material, following label directions, or add 1 gallon of 3% household ammonia for every 100 gallons of water, circulate through sprayer for 5 minutes, and then flush all hoses, booms, screens and nozzles for a minimum of 15 minutes.
- Drain tank completely.
- Add enough clean water to the spray tank to allow all hoses, booms, screens, and nozzles to be flushed for 2 minutes.
- Remove all nozzles and screens and rinse them with clean water.

### **APPLICATION INSTRUCTIONS**

**Flumi-Imazapyr** may be used in weed management programs on labeled non-crop sites to provide residual preemergence and postemergence control of the following weeds:

<b>Broadleaf Weeds</b>	<b>Grass Weeds</b>
Alyssum Hoary	Bahiagrass
Amaranth, Palmer	Barnyardgrass
Amaranth, Spiny	Beardgrass
Arrowwood	Bermudagrass
Beggarweed, Florida	Big Bluestem
Bittercress, Hairy	Bluegrass, Annual
Blackberry	Broadleaf Signalgrass
Broom snakeweed	Canada Bluegrass
Burclover, California	Cattail
Burdock	Cheat
Carpetweed	Crabgrass, Large
Cenna, Coffee	Crabgrass, Smooth
Camphorweed	Crabgrass, Southern

<b>Broadleaf Weeds</b>	<b>Grass Weeds</b>
Chickweed, common	Crowsfootgrass
Chickweed, mouseear	Dallisgrass
Clover	Downy brome
Cocklebur	Fall Panicum
Cogongrass	Feathertop
Croton, Topical	Fescue
Cudweed	Foxtail, Bristly
Dandelion	Foxtail, Giant
Desert camelthorn	Foxtail, Green
Dock	Foxtail, Yellow
Dogfennel	Goosegrass
Doveweed	Guineagrass
Eclipta	Italian Ryegrass
Fiddleneck	Itchgrass
Field bindweed	Johnsongrass
Filaree, Redstem	Junglerice
Fleabane	Lovegrass, California*
Galinsoga, Hairy	Orchardgrass
Geranium, Carolina	Panicum, Fall
Giant Reed	Panicum, Texas
Goldenrod	Phragmites
Gray rabbitbrush	Prairie Cordgrass
Groundsel, Common	Prairie threeawn
Hedge bindweed	Quackgrass
Henbit	Reed Canarygrass
Hoary vervain	Saltgrass
Horseweed*	Sand dropseed
Indian mustard	Sandbur
Indigo, Hairy	Smooth brome
Ivy, Ground*	Sprangletop
Japanese bamboo/knotweed	Timothy
Jimsonweed	Torpedograss
Knotweed prostrate	Vaseygrass
Kochia	Witchgrass
Kyllinga, Green*	Wirestem muhly
Ladysthumb	Woolly cupgrass
Lambsquarter, Common	
Liverwort	
Mallow, Common	
Mallow, Little	
Mallow, Venice	
Mayweed*	

Broadleaf Weeds	Grass Weeds
Milkweed	
Miners lettuce	
Morningglory, Entireleaf	
Morningglory, Ivyleaf	
Morningglory, Red/Scarlet	
Morningglory, Smallflower	
Morningglory, Tall	
Moss	
Mullein	
Mustard, Tumble	
Mustard, Wild	
Nettleleaf goosefoot	
Nightshade, Black	
Nightshade, Eastern Black	
Nightshade, Hairy	
Nightshade, Silver	
Oxeye daisy	
Parsley-Piert	
Pearlwort, Birdseye*	
Pennycress, Field	
Pepperweed	
Phyllanthus, Longstalked	
Pigweed, Prostrate	
Pigweed, Redroot	
Pigweed, Smooth	
Pigweed, Tumble	
Pineappleweed*	
Plantain, Broadleaf	
Plantain, Buckthorn	
Poinsettia, Wild	
Pokeweed	
Primrose	
Puncturevine	
Purslane, Common	
Pusley, Florida	
Ragweed, Common	
Ragweed, Giant	
Ragweed, Western	
Redmaids	
Redweed	
Rocket, London	
Rocket, Yellow	

Broadleaf Weeds	Grass Weeds
Rush skeletonweed	
Russian knapweed	
Saltbush	
Sesbania, Hemp	
Shepherd's-Purse	
Sida, Prickly (teaweed)	
Signalweed*	
Smartweed, Pennsylvania	
Sowthistle, Annual	
Spurge, Annual	
Spurge, Prostrate	
Spurge, Spotted	
Starbur, Bristly*	
Stinging Nettle	
Sunflower	
Sweet clover	
Tansy Mustard	
Texas Thistle	
Thistle, Bull	
Thistle, Canada*	
Thistle, Russian	
Velvetleaf	
Waterhemp, Common	
Waterhemp, Tall	
Wild barley	
Wild Carrot	
Wild oats	
Wild parsnip	
Wild turnip	
Woodsorrel, Yellow	
Woollyleaf bursage	
Yellow starthistle	

\*Pre-emergent control only. Adding Alligare Glyphosate 4 Plus (EPA Reg. No. 81927-9) to **Flumi-Imazapyr** will improve post-emergent control of these weeds.

### STORAGE AND DISPOSAL

**DO NOT** contaminate water, food, or feed by storage, disposal, or cleaning of equipment.

#### **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**.

#### **PESTICIDE DISPOSAL**

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

**CONTAINER HANDLING:**

**[Nonrefillable Plastic Containers 5 gallons or less:]** [Nonrefillable container. **DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full of water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.]

**[Nonrefillable Plastic Containers larger than 5 gallons:]** [Nonrefillable container. **DO NOT** reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full of water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.]

**[Refillable Plastic Containers larger than 5 gallons:]** [Refillable container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full of water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.]

**CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

To the extent consistent with applicable law, upon purchase or use of this product, purchaser and user agree to the following terms:

**Warranty:** Alligare, LLC (the Company) warrants that this product conforms to the chemical description on the label in all material respects and is reasonably fit for the purpose referred to in the directions for use, subject to the exceptions noted below, which are beyond the Company's control. To the extent consistent with applicable law, the Company makes no other representation or warranty, express or implied, concerning the product, including no implied warranty of merchantability or fitness for a particular purpose. To the extent consistent with applicable law, no such warranty shall be implied by law, and no agent or representative is authorized to make any such warranty on the Company's behalf.

**Terms of Sale:** The Company's directions for use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, and the manner of use or application (including failure to adhere to label directions), all of which are beyond the Company's control. To the extent consistent with applicable law, all such risks are assumed by the user.

**Limitation of Liability:** To the extent consistent with applicable law, the exclusive remedy against the Company for any cause of action relating to the handling or use of this product is a claim for damages, and in no event shall damages or any other recovery of any kind exceed the price of the product which caused



the alleged loss, damage, injury or other claim. To the extent consistent with applicable law, under no circumstances shall the Company be liable for any special, indirect, incidental, or consequential damages of any kind, including loss of profits or income. Some states do not allow the exclusion or limitation of incidental or consequential damages.

The Company and the seller offer this product, and the purchaser and user accept this product, subject to the foregoing warranty, terms of sale and limitation of liability, which may be varied or modified only by an agreement in writing signed on behalf of the Company by an authorized representative.

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