

FSTOA: Management Unit ESRA for Fluroxypyr

Environmental Management Unit Assessment

Pesticide:	Fluroxypyr		<u>Specific Formulation:</u>
Hazard Status:	Fluroxypyr is not considered a highly hazardous pesticide (HHP) per the FSC Pesticides Policy (FSC-POL-30-001 V3-0 EN) and the FSC Lists of Highly Hazardous Pesticides (FSC-POL-30-001a EN).		DISCLAIMER: Adoption or adaption of this assessment alone does not guarantee compliance with FSC-POL-30-001 V3-0 (see Background/Expectations Section)
Exposure Elements	Minimum list of values	Description of why/why not a risk on the Management Unit	Management Unit Mitigation strategies defined to minimize risk
Environmental	Soil (erosion, degradation, biota, carbon storage)	<p>Minimal indication of adverse effects to soil was found when Fluroxypyr is used according to label instructions in forestry applications. Additional considerations are provided below.</p> <p>Available data indicate that fluroxypyr acid is mobile to very mobile in the submitted laboratory studies. However, dissipation by hydrolysis and microbial degradation reduced persistence and limited downward transport (i.e., leaching) in the submitted field studies (2).</p>	<p>Follow all pesticide label application instructions. Follow applicable criterion and indicators from the FSC US FM Standard V1.0 (e.g., Criterion 4.3 for worker safety, Criterion 7.3 for worker training, Criterion 6.5 for protecting water resources, and Criteria 8.1 and 8.2 for Monitoring). Applicators or persons supervision application of restricted use pesticides are required to be certified in accordance with EPA regulations and state, territorial and tribal laws. Additional risk mitigation strategies are provided below. Organizations should take reasonable steps to avoiding environmental and social impacts by considering the mitigation strategies provided below as well as application-, Organization-, or location-specific strategies.</p> <p>General consideration of exposure variables designed to mitigate risk:</p> <ul style="list-style-type: none"> -Know and understand the specific pesticide formulation and/or tank mixture, as its unique formulation may provide a different risk characterization. -Understand how the mixture of active ingredients affects the pesticides risk profile.
	Water (ground water, surface waters, water supplies)	<p>Minimal indication of adverse effects to water was found when Fluroxypyr is used according to label instructions in forestry applications.</p>	
	Atmosphere (air quality, greenhouse gasses)	<p>Minimal indication of adverse effects to atmosphere was found when Fluroxypyr is used according to label instructions in forestry applications.</p>	
Environmental	Non-target species (vegetation, wildlife, bees and other pollinators, pets)	<p>Minimal indication of adverse effects to non-target species was found when Fluroxypyr is used according to label instructions in forestry applications. Additional considerations are provided below.</p> <p>There is no basis for asserting that exposure is likely to cause adverse effects in terrestrial animals (1).</p>	

		<p>Applications do not appear to present a risk to tolerant or sensitive species of fish, tolerant species of aquatic invertebrates (crustaceans), or tolerant species of algae and aquatic macrophytes (1). Based on a single study in a single species of bivalve, the conservative assumption should be made that aquatic mollusks may be at risk of adverse effects from the application of fluroxypyr-MHE (1).</p>	<p>-Seek to minimize the frequency, interval, and amount of application. -Use the most efficient and effective method of application by seeking to minimize risk to environmental and social values. -Understand the site (e.g., soil type, topography, etc.) and climatic (e.g., wind, temperature, and humidity) conditions and the likely effect on risk to environmental and social values. -Have appropriate waste management systems in place.</p>
	<p>Non-timber forest products (as FSC-STD-01-001 V5-2 FSC Principles and Criteria, criterion 5.1)</p>	<p>Minimal indication of adverse effects to non-timber forest products was found when Fluroxypyr is used according to label instructions in forestry applications.</p>	<p>Mitigation Risk to the Environment:</p>
	<p>High Conservation Values (particularly HCV 1-4)</p>	<p>Minimal indication of adverse effects to high conservation values was found when Fluroxypyr is used according to label instructions in forestry applications</p>	<p>ENVIRONMENTAL HAZARDS (1) This product is toxic to fish. Drift or runoff from treated areas may be hazardous to aquatic organisms and non-target plants. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.</p>
	<p>Landscape (aesthetics, cumulative impacts)</p>	<p>Minimal indication of adverse effects to landscape values was found when Fluroxypyr is used according to label instructions in forestry applications.</p>	<p>NON-TARGET ORGANISM ADVISORY STATEMENT (1): 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.</p>
	<p>Ecosystem services (water, soil, carbon sequestration, tourism)</p>	<p>Minimal indication of adverse effects to ecosystem services was found when Fluroxypyr is used according to label instructions in forestry applications. Additional considerations are provided below.</p> <p>In relation to surface runoff, no risks for non-target terrestrial plants, fish, aquatic plants, or piscivorous (fish-eating) birds (3).</p>	<p>Restrictions (1): This product is persistent and may be present in plant materials for over 30 days after application. Do not use treated plant material or manure from animals that have grazed or consumed forage from treated areas for compost, mulch, or mushroom spawn until 30 days after application. Animals that have been fed fluroxypyr treated forage must be fed forage free of fluroxypyr for at least 3 days before they are moved off the treated property.</p>

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¹ https://www.fs.fed.us/foresthealth/pesticide/pdfs/0521303a_fluroxypyr.pdf (fluroxypyr-MHE)

² [US EPA - Pesticides - Fact Sheet for Fluroxypyr](#)

³ [Fluroxypyr Ecological Risk Assessment Final \(blm.gov\)](#)

Social Management Unit Assessment

Pesticide:	Fluroxypyr		<u>Specific Formulation:</u>
Hazard Status:	Fluroxypyr is not considered a highly hazardous pesticide (HHP) per the FSC Pesticides Policy (FSC-POL-30-001 V3-0 EN) and the FSC Lists of Highly Hazardous Pesticides (FSC-POL-30-001a EN).		DISCLAIMER: Adoption or adaption of this assessment alone does not guarantee compliance with FSC-POL-30-001 V3-0 (see Background/Expectations Section)
Exposure Elements	Minimum list of values	Description of why/why not a risk on the Management Unit	Management Unit Mitigation strategies defined to minimize risk
	High Conservation Values (especially HCV 5-6)	Minimal indication of adverse effects to high conservation values was found when Fluroxypyr is used according to label instructions in forestry applications.	Follow all pesticide label application instructions. Follow applicable criterion and indicators from the FSC US FM Standard V1.0 (e.g., Criterion 4.3 for worker safety, Criterion 7.3 for worker training, Criterion 6.5 for protecting water resources, and Criteria 8.1 and 8.2 for Monitoring). Applicators or persons supervision application of restricted use pesticides are required to be certified in accordance with EPA regulations and state, territorial and tribal laws. Additional risk mitigation strategies are provided below. Organizations should take reasonable steps to avoiding environmental and social impacts by considering the mitigation strategies provided below as well as application-, Organization-, or location-specific strategies. Precautionary Statements – Hazardous to humans & domestic animals warning. (1)
	Health (fertility, reproductive health, respiratory health, dermatologic, neurological and gastrointestinal problems, cancer and hormonal imbalance)	Minimal indication of adverse effects to human health was found when Fluroxypyr is used according to label instructions in forestry applications. Additional considerations are provided below. Fluroxypyr is classified “not likely to be carcinogenic to humans” due to lack of evidence to suggest carcinogenicity in the database, and there is no concern for its ability to induce permanent transmissible changes in the amount or structure of the genetic material of cells or organisms (4). It does not demonstrate developmental or reproductive toxicity (3). Fluroxypyr has low acute toxicity by the oral and dermal routes of exposure and moderate to	

		mild acute toxicity by the inhalation route of exposure, based on lethality studies (4). Fluroxypyr is not a dermal sensitizer, nor is it irritating to the skin; however, it is a mild eye irritant (4).	<p>-Causes substantial but temporary eye injury. - Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.</p> <p>-Do not get in eyes or on clothing.</p> <p>-Wash thoroughly before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.</p> <p>-PERSONAL PROTECTIVE EQUIPMENT (1): Applicators and other handlers must wear: Long-sleeved shirt and long pants. Chemical-resistant gloves made of barrier laminate, butyl rubber >14 mils, nitrile rubber, neoprene rubber, polyvinyl chloride (PVC) or Viton, all >14 mils. Shoes plus socks. Protective eyewear.</p> <p>-Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. -Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.</p> <p>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. 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 (1).</p>
Social	Welfare	Minimal indication of adverse effects to welfare was found when Fluroxypyr is used according to label instructions in forestry applications.	
	Food and water	<p>Minimal indication of adverse effects to food and water was found when Fluroxypyr is used according to label instructions in forestry applications. Additional considerations are provided below.</p> <p>Wash hands thoroughly before eating, drinking, chewing gum, using tobacco, or using the toilet (1). One accidental exposure scenario shows that subsistence populations consuming fish after an accidental spill would exceed the hazard quotient level of concern. This exposure scenario is extreme but illustrates the potential consequences of a large spill into a small pond (2).</p>	
	Social Infrastructure; (schools and hospitals, recreational infrastructure, infrastructure adjacent to the management unit)	Minimal indication of adverse effects to social infrastructure was found when Fluroxypyr is used according to label instructions in forestry applications.	
	Economic viability (agriculture, livestock, tourism)	Minimal indication of adverse effects to economic viability was found when Fluroxypyr is used according to label instructions in forestry applications.	

	Rights (legal and customary)	Minimal indication of adverse effects to rights was found when Fluroxypyr is used according to label instructions in forestry applications.	Mitigation Risk to Public Access/Public Welfare:
	Others	No additional values were identified in this assessment.	

¹ [US EPA, Pesticide Product Label, LPI Fluroxypyr MHE,07/13/2020](#)

² https://www.fs.fed.us/foresthealth/pesticide/pdfs/0521303a_fluroxypyr.pdf

³ [US EPA - Pesticides - Fact Sheet for Fluroxypyr](#)

⁴ [Federal Register :: Fluroxypyr; Pesticide Tolerances](#)