



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

December 1, 2021

Robert Avalos
Manager of Registrations
Loveland Products Inc.
P.O. Box 1286
Greeley, CO 80632-1286

Subject: Registration Review Label Mitigation for Clethodim–SLN Amendment
Acknowledgment Letter
Product Name: INTENSITY ONE POST EMERGENCE GRASS HERBICIDE
EPA Registration Number: OR-090002
Parent EPA Reg. No.: 34704-976
Application Date: 3/19/2020
Decision Number: 580313

Dear Mr. Avalos:

The Agency acknowledges receipt of the label for the above-listed Special Local Need (SLN) registration pursuant to Section 24(c) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, submitted to support the Registration Review of Clethodim. The Agency has completed its review of the SLN label and acknowledges that the label, as amended, complies with the Clethodim Interim Decision.

We have placed a copy of the amended SLN label in our files. If you have any questions, please contact DeMariah Koger by phone at (703)-347-0425, or via email at koger.demariah@epa.gov.

Sincerely

A handwritten signature in blue ink, appearing to read "Linda Arrington", is located below the word "Sincerely".

Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

Cc: RD PM contact: Aswathy Balan
RD MUERB PM contact: Eric Bohnenblust
State regulatory contact: Gilbert Uribe

FIFRA SECTION 24(c) SPECIAL LOCAL NEED (SLN)
FOR DISTRIBUTION AND USE ONLY WITHIN THE STATE OF OREGON

CLETHODIM	GROUP	1	HERBICIDE
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**INTENSITY ONE POST EMERGENCE GRASS
HERBICIDE®**

EPA REG. NO. 34704-976

EPA SLN NO. OR-090002

For Control of weeds in MEADOWFOAM (*Limnanthes* spp.)

This label valid until December 31, 2024 or until otherwise amended, withdrawn, canceled, or suspended.

ACTIVE INGREDIENT:

*Clethodim12.6%

OTHER INGREDIENTS:87.4%

TOTAL.....100.0%

Contains Petroleum Distillates

*(E)-2-[1-[[[(3-chloro-2-propenyl)oxy]imino]propyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one

Contains 0.97 lbs clethodim per gallon

KEEP OUT OF REACH OF CHILDREN

CAUTION

ENVIRONMENTAL HAZARDS

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 apply where runoff is likely to occur. Do not apply where weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment washwater or rinsate.

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 area. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

DIRECTIONS FOR USE

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This Special Local Need (SLN) label and the EPA registered product label must be in the possession of user at the time of pesticide application.
- Follow all applicable directions, restrictions, and precautions on this SLN and on the EPA registered label for INTENSITY ONE POST EMERGENCE GRASS HERBICIDE, EPA Reg. No. 34704-976.
- 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.

APPLICATION INFORMATION

Apply INTENSITY ONE POST EMERGENCE GRASS HERBICIDE to actively growing grasses according to the rate table.

Rate Table			
Grass Species	Weed Height ^A Inches	Normal Rate ^B Fl. oz./Acre (lb ai/Acre)	High Rate ^C Fl. oz./Acre (lb ai/Acre)
Wild Oats (<i>Avena fatua</i>)	2 – 6	9.0 (0.070)	16.0 (0.121)
Annual Bluegrass (<i>Poa annua</i>)	Apply before 4-leaf stage	9.0 (0.070)	16.0 (0.121)
Volunteer Cereals			
Barley (<i>Hordeum vulgare</i>)	2 - 6	9.0 (0.070)	16.0 (0.121)
Oats (<i>Avena sativa</i>)	2 - 6	9.0 (0.070)	16.0 (0.121)
Rye (<i>Secale cereale</i>)	2 - 6	9.0 (0.070)	16.0 (0.121)
Wheat (<i>Triticum aestivum</i>)	2 - 6	9.0 (0.070)	16.0 (0.121)
Perennial Ryegrass (<i>Lolium perenne</i>)	2 - 4	12.0 (0.091)	16.0 (0.121)
Quackgrass (<i>Agropyron repens</i>) First Application Repeat	4 - 8	16.0 (0.121)	
	4 - 8	16.0 (0.121)	

^A Generally occurs between 3-leaf stage and tillering.

^B Apply under favorable soil moisture and humidity which exists within a few days after rainfall or within 7 days after irrigation. Apply at weed height as indicated on the label.

^C Use the high rate under heavy grass pressure and/or when grasses are at maximum height.

Use of sufficient spray volumes and pressure is essential to ensure complete coverage. Use a minimum of 20.0 gallons and a maximum of 40 gallons of spray solution per acre for ground application only.

INTENSITY ONE POST EMERGENCE GRASS HERBICIDE may be applied by aircraft using a minimum of 10.0 gallons of spray solution per acre.

Apply only to actively growing grasses at recommended weed heights.

Apply when the first grass weed species in a mixed grass weed population reaches the recommended height.

Apply to Meadowfoam prior to bloom. Do not apply after bloom has begun, as Meadowfoam injury could occur.

Use of a non-ionic surfactant, such as LIBERATE® at 0.25% v/v is recommended. Use of spray grade ammonium sulfate at 1.5 to 2.0 pound per acre will help maximize grass control.

Applying INTENSITY ONE POST EMERGENCE GRASS HERBICIDE between December 15 and February 1 in western Oregon increases the risk of crop injury.

RESTRICTIONS AND LIMITATIONS

- Do not apply if rain is expected within 1 hour of application, as control may be unsatisfactory.
- Do not plant rotational crops until 30 days after application of Intensity One Post-Emergence Grass Herbicide unless crop is listed on Intensity One Post-Emergence Grass Herbicide label.
- Do not apply a postemergence broadleaf herbicide within 1 day following application of Intensity One Post-Emergence Grass Herbicide or reduced grass control may result.
- Do not apply under conditions of stress. Applying Intensity One Post-Emergence Grass Herbicide under conditions that do not promote active grass growth will reduce herbicide effectiveness. These conditions include drought, excessive water, extremes in temperature, low humidity and grasses either partially controlled or stunted from prior pesticide applications. Grasses under these kinds of stressful conditions will not absorb and translocate Intensity One Post-Emergence Grass Herbicide effectively, and will be less susceptible to herbicide activity.
- Do not exceed a total of 32.0 fl. oz./acre (0.25 lb a.i.) per season.
- Do not apply when severe cold periods occur. Severe Meadowfoam damage has been observed in cases associated with hard frost even several weeks after application.
- **Chemigation:** For use under this SLN, do not apply this product through any type of irrigation system.

Always read and follow the restrictions and limitations for all products whether used alone or in a tank mix. The most restrictive labeling of any product used applies in tank mixtures, including all crop rotational and other crop restrictions.

Tank mixes of Intensity One Post-Emergence Grass Herbicide and broadleaf herbicides may result in reduced grass control. If grass regrowth occurs, an additional application of Intensity One Post-Emergence Grass Herbicide may be necessary.

SPRAY DRIFT

Aerial Applications:

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use 1/2 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 Boom Applications:

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy. For all other ground applications, the nozzle must be no more than 3 feet from the target vegetation.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- 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

For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift.

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.

WEED RESISTANCE MANAGEMENT

The active ingredient in this product is clethodim, which is an acetyl CoA carboxylase (ACCase) inhibitor (Group 1). A given weed population may contain or develop resistance to an herbicide after repeated use. Appropriate resistance-management strategies should be followed to mitigate or delay resistance. If levels of control provided by applications of this product is reduced and cannot be accounted for by factors such as misapplication, abnormal levels of target species or extremes of weather, it may be the case that target species have developed a strain resistant to applications of this product. Contact your local extension agent, crop advisor, or sales representative to find out if suspected resistant weeds have been found in your region.

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.

If resistance develops, this product may not provide sufficient control of target species. Where you suspect target species are developing resistance, contact State/local agricultural advisors. Integrated weed management guidelines promote an economically viable, environmentally sustainable, and socially acceptable weed control program regardless of the herbicide(s) used.

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

- Rotate the use of (name of product) or other Group (mode of action group number) herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.

The highlights of successful integrated weed management include:

- Correctly identify weeds and look for trouble areas within field to identify resistance indicators.
- Rotate crops.
- Start the growing season with clean fields.
- Rotate herbicide modes of action within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Apply listed rates of herbicides to actively growing weeds at the correct time with the right application techniques.
- Control any weeds that may have escaped the herbicide application.
- Thoroughly clean field equipment between fields.

- Scout before and after application.
- 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.

Report any incidence of non-performance of this product against a particular weed species to your Loveland Products, Inc. retailer, representative or call 1-888-574-2878. 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.

SPECIAL CROP USE RESTRICTIONS

The pesticide applicator, the producer of the crop, and the seed conditioner must be aware that use of this product according to this labeling is deemed a non-feed/non-food use by the Oregon Department of Agriculture, and is regulated by Oregon Administrative Rule (OAR) 603-057-0535, Pesticide Use On Crops Grown For Seed. If the applicator of this pesticide is not the producer, the applicator must provide a copy of this labeling to the producer of the crop. Producers of this crop who use this product, or cause the product to be used on a field they operate, must provide a copy of this pesticide label to the seed conditioner.

This pesticide does not have an established pesticide residue tolerance for this crop. Consequently, no portion of this seed crop may be used or distributed for food or feed for 1 year (365 days) after the last application of this product. This restriction pertains to, but is not limited to: green chop, forage, hay, pellets, meal, whole seed, cracked seed, straw, roots, bulbs, foliage or seed screenings, and to the grazing of the crop field, stubble or regrowth. All seed screenings shall be disposed of in such a manner that the screenings cannot be distributed or used for food or feed purposes, as indicated in OAR 603-057-0535. Additional regulations concerning seed screenings are stated in OAR 603-057-0535.

Any seed from a field treated with this pesticide product shall bear specific and conspicuous container labeling, or if shipped in bulk, on the shipment invoice or bill of lading. The labeling shall contain the following statement:

"This seed was produced using one or more products for which the United States Environmental Protection Agency has not established pesticide residue tolerances. This seed, in whole, as sprouts, or in any form, may not be used for human consumption or animal feed. Failure to comply with this condition may violate requirements of the Federal Food and Drug Administration, the Oregon Department of Agriculture and other regulatory agencies."

Intensity Post-Emergence Grass Herbicide and Liberate are registered trademarks of Loveland Products, Inc.

24c Registrant:

Loveland Products, Inc.

P.O. Box 1286

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