



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

February 25, 2020

Jennifer Fulford
Authorized Representative
Imaflex, Inc.
5710 Rue Notre Dame
West Montreal, Quebec, H4C
1V2 514/935-5710

Subject: Label Amendment – Adding resistant management language based on the guidance in EPA PRN 2017-1 and 2017-2
Product Name: ADVASEAL HSM
EPA Registration Number: 91278-1
Application Date: November 17, 2017
Decision Number: 536523

Dear Ms. Fulford:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

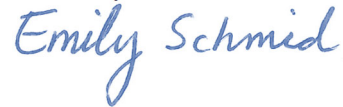
A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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 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) list 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.

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Decision No. 536523

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Shanta Adeeb by phone at 703-347-0502, or via email at adeeb.shanta@epa.gov.

Sincerely,



Emily Schmid, Product Manager 25
Herbicide Branch
Registration Division (7505P)
Office of Pesticide Programs

Enclosure

ACCEPTED

2/25/2020

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 91278-1

HALOSULFURON-METHYL	GROUP	2	HERBICIDE
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**ADVASEAL® HSM
HERBICIDAL PLASTIC FUMIGATION FILM**

ADVASEAL® HSM is a plastic mulch film that releases a selective herbicide to control certain broadleaf weeds and nutsedge pre-emergence in selected crops and can be used to reduce fumigant emissions. Only the inside layer of the product roll contains an herbicide.

THE ACTIVE LAYER OF EACH THICKNESS OF ADVASEAL® HSM FILM CONTAINS:
0.110 oz of Halosulfuron-methyl /10,000 ft²

THE COMPLETE LABEL FOR THIS PRODUCT CONSISTS OF THE CONTAINER LABEL AND BOOKLET ATTACHED TO SHIPPING CONTAINER. READ AND UNDERSTAND THE ENTIRE LABEL FOR DIRECTIONS FOR USE, PRECAUTIONS AND RESTRICTIONS.

WHEN USED WITH A FUMIGANT, OBSERVE THE MOST RESTRICTIVE OF THE LABELING LIMITATIONS AND PRECAUTIONS OF BOTH PRODUCTS THE USER MUST ENSURE THAT THE FUMIGANT PRODUCT IS REGISTERED FOR THE INTENDED USE ACCORDING TO THE LABEL.

Active Ingredient*	...Halosulfuron-methyl.....	0.00705%
Other Ingredients*	99.99295%
Total:.....	100.00000%

*% weight calculations are based upon 2 MIL** ADVASEAL® HSM / 10,000 ft².]

ALTERNATE ADVASEAL® HSM FILMS BY THICKNESS**

	1 MIL**	1.25 MIL**	1.5 MIL**
Active Ingredient: Halosulfuron-methyl.....	0.01277%	0.01061%	0.00908%
Other Ingredients:	99.98723%	99.98938%	99.99092%
Total:	100.00000%	100.00000%	100.00000%

** EACH THICKNESS (1, 1.25, 1.5, and 2.0 MIL) OF ADVASEAL® HSM film contains 0.110 oz of Halosulfuron-methyl /10,000 ft²

KEEP OUT OF REACH OF CHILDREN

CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se las explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail).

FIRST AID	
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> - Take off contaminated clothing. - Rinse skin immediately with plenty of water for 15-20 minutes. - Call a poison control center or doctor for treatment advice.
YOU MAY ALSO CONTACT 919-280-9220 TOLL FREE FOR EMERGENCY MEDICAL TREATMENT INFORMATION	

EPA Registration No. 91278-1
EPA Establishment No. 86014-CO-001
No. 91278-NC-001

Produced for:
Imaflex, Inc.
5710 rue Notre Dame West
Montreal, Quebec
Canada H4C 1V2

Batch/Lot:

Net contents: Contains 0.110 oz. of Halosulfuron-methyl/ 10,000 ft²

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Handlers must wear long sleeve shirt and long pants, socks, shoes and chemical resistant gloves.
- Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATION

- Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

The herbicide chemical incorporated into this plastic mulch film demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the groundwater is shallow, may result in groundwater contamination. Runoff may be hazardous to aquatic organisms in water adjacent to treated areas. The chemical in this film is toxic to non-target vascular plants.

DIRECTIONS FOR USE

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- Do not apply this product in a way that will contact workers or other persons. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval (REI). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the REI of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated is:

- coveralls
- chemical-resistant gloves made of any waterproof material
- shoes plus socks.

PRODUCT INFORMATION

ADVASEAL® HSM is a plastic mulch film that releases a selective herbicide to control certain broadleaf weeds and nutsedge pre-emergence in selected crops, and can be used to reduce fumigant emissions. ADVASEAL® HSM can be absorbed through roots and shoots of a growing plant and can be translocated within the plant. Use ADVASEAL® HSM only in accordance with its labeling and worker protection standards for registered crops for pre-emergent control of listed broadleaf weeds, and nutsedge.

RESISTANCE-MANAGEMENT RECOMMENDATIONS:

For resistance management, ADVASEAL® HSM contains a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to ADVASEAL® HSM and other Group 2 herbicides. The resistance biotypes may dominate the weed population if these herbicides are used repeatedly pre-emergent and post-emergent in the same field. Weeds can develop resistance to herbicides. Some weed biotypes have inherent resistance to certain herbicides. Repeated use of pre-emergent and post-emergent herbicides with similar modes of action can result in the development of resistance in weed populations. ADVASEAL® HSM contains an herbicide that is a member of the sulfonyleurea family and is an ALS enzyme inhibiting herbicide. Appropriate resistance-management strategies should be followed. To delay herbicide resistance, take one or more of the following steps:

- 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).
- Fields should be scouted after application to verify that treatment was effective. Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: failure to control a weed species normally controlled by herbicide at the dose applied, especially if nutsedge is piercing through the plastic mulch. If resistance is suspected, prevent nutsedge seed production in the affected plastic mulch area by spray application of an alternative herbicide from a different group.
- If nutsedge 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 (e.g., non-ALS/AHAS materials), if available.
- Contact your professional crop advisor, local cooperative extension specialist, or Imaflex, Inc. representative for additional information at 941-284-6334.

APPLICATION INSTRUCTIONS

ADVASEAL® HSM film must be applied as a bedded mulch that it is in continuous contact with the soil. The bed must be uniform with no dish shapes to prevent the mulch from direct contact with the soil because ADVASEAL® HSM releases the active ingredient once the coating on the layer next to the soil gets wet by absorbing water from the soil. The mulch must be applied with a properly adjusted equipment to ensure that the edges of the mulch are secured with a generous amount of soil. However, do not apply more soil than is needed, as this makes the mulch more difficult to remove. Stretch wheels must be adjusted to stretch the mulch edge securely into the anchoring furrow for covering. Mulch applied properly will not blow off the row and requires minimum effort to remove.

ADVASEAL® HSM is packaged in varying lengths from 1600 to 4000 foot per roll. Bedded rows on 6-foot centers require 7,260 feet of row, and rows on 5-foot centers require 8,720 feet of row, to cover an acre of land. The number of rolls needed per acre is calculated by dividing the feet of row by the foot per roll. Therefore, about 3.6 rolls of ADVASEAL® HSM are needed per acre on 6-foot centers, and about 4.4 rolls are needed per acre on 5-foot centers at 2000 foot per roll.

Handler exposure is minimized by an on average 4-inch strip on both edges consisting only of the film, *i.e.*, without the coated interlayers. These strips run the entire length of the tarp on both sides. Applicators handling the tarp

using the 4-inch strip would have no exposure to the Halosulfuron-methyl HSM.

USE RESTRICTIONS

- The surface of the film that is on the inside of the roll must be applied to the soil surface.
- When used with a fumigant, observe the most restrictive of the labeling limitations and precautions of both products.
- Do not apply more than 43, 560 ft² ADVASEAL[®] HSM twice per acre during a 12-month period.

THIS TABLE LISTS WEEDS CONTROLLED BY ADVASEAL[®] HSM.

WHEN USED IN COMBINATION WITH A FUMIGANT, CHECK THE FUMIGANT LABEL TO DETERMINE IF ADDITIONAL WEEDS ARE SUPPRESSED OR CONTROLLED.

C=Controlled; S= Suppressed

WEED SPECIES		PREEMERGENT ACTIVITY
Amaranth, spiny ¹	<i>Amaranth spinosus</i>	C ¹
Cocklebur, common	<i>Xanthium strumarium</i>	C
Com Spurry	<i>Spergula arvensis</i>	C
Dayflower*	<i>Commelina erecta</i>	C
Eclipta*	<i>Eclipta prostrate</i>	C
Flatsedge, Rice*	<i>Cyperus iria</i>	S
Galinsoga	<i>Galinsoga</i>	C
Goosefoot		C
Groundsel	<i>Senecio vulgaris</i>	C
Horseweed/Marestall	<i>Erigeron Canadensis</i>	C
Jimsonweed	<i>Datura stramonium</i>	C
Kochia ¹	<i>Kochia scoparia</i>	C ¹
Ladysthumb	<i>Polygonum persicaria</i>	C
Lambsquarter, Common	<i>Chenoposium album</i>	C
Mustard, Wild	<i>Sinapis arevensis</i>	C
Nutsedge, Yellow	<i>Cyperus exculentus</i>	S
Nutsedge, Purple	<i>Cyperus rotundus</i>	S
Pigweed, Redroot ¹	<i>Amarunthus retroffiexus</i>	C ¹
Pigweed, Smooth ¹	<i>Amaranthus hybridus</i>	C ¹
Purslane	<i>Portulaca oleracea</i>	S
Radish, Wild	<i>Rapharius raphanistrum</i>	C
Ragweed, Common	<i>Ambrosia artemisiifolia</i>	C
Shepherdspurse	<i>Capsell bursa-pastoris (L.) medicus</i>	C
Smartweed, Pennsylvania	<i>Polyfonum pensylvaninum</i>	C
Sunflower	<i>Helianthus annuus</i>	C
Velvetleaf	<i>Abutilan theophrasti</i>	C

* Except California

¹ Certain biotypes of this weed species are known to be resistant to ALS herbicides.

CROP APPLICATIONS

ADVASEAL® HSM may be applied to listed crops as a pre-plant application for suppression of nutsedge and control of listed broad leaf weeds.

Crop	Crop Specific Restrictions
Asparagus	Must not be transplanted into treated beds any sooner than 11 days after ADVASEAL® HSM is installed. Pre-harvest interval (PHI) = 18 days.
Cucumbers, including pickling cucumbers	Must not be seeded or transplanted into the treated beds any sooner than 11 days after installation of ADVASEAL® HSM.
Cantaloupes	Must not be seeded or transplanted into the treated beds any sooner than 11 days after installation of ADVASEAL® HSM.
Honeydew melons	Must not be seeded or transplanted into the treated beds any sooner than 11 days after installation of ADVASEAL® HSM.
Watermelons	Must not be seeded or transplanted into the treated beds any sooner than 11 days after installation of ADVASEAL® HSM. Use only in AL, AR, AZ, CT, DE, FL, GA, IL, IN, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, NH, NJ, NY, OH, OK, PA, RI, SC, TN, TX, VA, VT, WV, WI.
Summer squash for processing	Must not be seeded or transplanted into the treated beds any sooner than 11 days after installation of ADVASEAL® HSM. Use only in AR, OK and MO.
Pumpkins	Must not be seeded or transplanted into the treated beds any sooner than 11 days after installation of ADVASEAL® HSM.
Winter squash	Must not be seeded or transplanted into the treated beds any sooner than 11 days after installation of ADVASEAL® HSM.
Tomatoes	Must not be seeded or transplanted into the treated beds any sooner than 11 days after installation of ADVASEAL® HSM.

DIRECTIONS FOR USE:

- For injection applications, install ADVASEAL® HSM immediately after the fumigant is applied to the soil. For drip applications, ADVASEAL® HSM must be put in place before the application starts.
- Crop may be seeded or transplanted into this treated area no sooner than 11 days after installation of the plastic mulch film, unless local conditions demonstrate safety at an earlier interval.
- Do not apply more than twice per acre during a twelve month period.
- Must be applied as a bedded mulch that is in continuous contact with the soil. The bed must be uniform with no dish shapes that prevent the mulch from direct contact with the soil.
- A bedded tarp application of ADVASEAL® HSM with 5-foot row centers results in treatment of 85% of an acre (areas between beds are not treated), which is equivalent to an application of 0.0935 oz. Halosulfuron-methyl/acre. Bedded tarp applications of ADVASEAL® HSM with 6-foot row centers result in treatment of 72% of each acre, which is equivalent to an application of 0.0792 oz. Halosulfuron-methyl/acre. **These applications must be taken into consideration when post-emergence applications of Halosulfuron methyl are made with SANDEA™ herbicide (75% Halosulfuron methyl) because total use of Halosulfuron methyl is restricted to 0.75 oz. /year for asparagus, pumpkins and winter squash, and not more than 1.5 oz. Halosulfuron methyl/year for cucumbers, cantaloupes, honeydews, Crenshaw melons, watermelon, summer squash and tomatoes.**

STORAGE AND DISPOSAL

DO NOT contaminate water, food, feed or seed by storage or disposal.

PESTICIDE STORAGE: Store product rolls under cool, dry conditions (below 120°F). Do not store under moist conditions.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product that cannot be used or chemically reprocessed must be disposed of in a landfill for pesticide disposal or in accordance with applicable Federal, state or local procedures.

CONTAINER HANDLING: Offer the plastic mulch film for recycling, if available, or dispose of in a sanitary landfill or by other procedures approved by state or local authorities.

DISPOSAL AUTHORITIES: If none of the foregoing procedures is permitted by state and local authorities, then contact your State Pesticide Environmental Control Agency, or your local Hazardous Waste Disposal office, or the Hazardous Waste Representative at the nearest EPA regional Office for guidance.

FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK OR FIRE), CALL CHEMTREC (800) 424-9300

NOTICE OF CONDITIONS OF SALE AND WARRANTY AND LIABILITY LIMITATIONS

Important: Read the entire Directions for Use and Notice of Conditions of Sale and Warranty and Liability Limitations before using this product.

Our directions and recommendations for use of this product are based on tests believed to be reliable. However, it is impossible to eliminate all risk associated with the use of this product. Crop injury, inadequate performance, or other unintended consequences may result due to soil or weather conditions, off target movement, presence of other materials, method of use or application, and other factors, all of which are beyond the control of Imaflex, Inc. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer and the User.

Imaflex Inc. warrants that this product conforms to the specifications on the label when used in strict conformance with Directions for Use, subject to the above stated risk limitations. **IMAFLEX INC. MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.**

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IMAFLEX INC.'S EXCLUSIVE LIABILITY FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, OR ANY OTHER LEGAL THEORY IS STRICTLY LIMITED TO THE PURCHASE PRICE PAID OR REPLACEMENT OF PRODUCT, AT IMAFLEX INC.'S SOLE DISCRETION.

*Halosulfuron-methyl is manufactured by Canyon Group LLC.