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|-------|---|----|-----------|
| GROUP | 2 | 14 | HERBICIDE |
|-------|---|----|-----------|

OPTILL®

For weed control in soybean

FOR USE IN ONTARIO & QUEBEC

HERBICIDE

WATER DISPERSIBLE GRANULES

COMMERCIAL (AGRICULTURAL)

GUARANTEE: Saflufenacil..... 17.8%
Imazethapyr.....50.2%

Warning: Contains the allergen sulfites

REGISTRATION NO. 30756

PEST CONTROL PRODUCTS ACT

CAUTION - EYE IRRITANT

READ THE LABEL AND BOOKLET BEFORE USING

KEEP OUT OF REACH OF CHILDREN

**IN CASE OF EMERGENCY ENDANGERING LIFE OR PROPERTY
INVOLVING THIS PRODUCT, CALL DAY OR NIGHT
1-800-454-2673**

NET CONTENTS: 0.25 kg - 20 kg

BASF Canada Inc.
100 Milverton Drive, 5th Floor
Mississauga, ON L5R 4H1
1-877-371-2273

OPTILL is a registered trade-mark of BASF SE, used with permission by BASF Canada Inc.

PRECAUTIONS

1. **KEEP OUT OF REACH OF CHILDREN**
2. **DO NOT** take internally. Harmful if swallowed.
3. **DO NOT** get in eyes or on skin. Avoid inhalation of vapour or spray.
4. **DO NOT** contaminate food or feed products.
5. **DO NOT** eat, drink or smoke when using.
6. Wash exposed areas of skin thoroughly after handling and before eating, drinking or smoking or going to the washroom. Take a shower immediately after work.
7. Wear a long-sleeved shirt, long pants, coveralls, shoes plus socks and chemical resistant gloves during mixing, loading, application, clean-up and repair.

When applied as a tank-mix combination, read and observe all label directions, including rates, restrictions, and grazing limitations for each product used in the tank-mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on both product labels.

8. If clothing becomes contaminated, remove immediately and wash. Store and wash all protective clothing separately from household laundry. Wash in detergent and hot water before reuse. Wear freshly laundered clothes daily.
9. Clean protective equipment (gloves, goggles, face shield) upon removal with soapy water.
10. Clean spray equipment thoroughly after use.
11. Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

FIRST AID

If swallowed: Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION

Treat symptomatically.

ENVIRONMENTAL HAZARDS

Toxic to non-target terrestrial plants and aquatic organisms. Observe the buffer zones specified under Restrictions and Limitations section.

STORAGE

1. Store the product in original, tightly-closed container and do not allow water to be introduced into this container.
2. **DO NOT** ship or store the product near food, feed, seed or fertilizers.
3. Store the product in a cool, dry, locked, well-ventilated area without floor drain.
4. Herbicides should be shipped or stored separately from other pesticides to avoid cross-contamination.

DISPOSAL

Recyclable Containers

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

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GENERAL INFORMATION

OPTILL will provide control of most annual grass and broadleaf weeds in soybeans.

OPTILL is applied in tank-mix combination with glyphosate as an early preplant or pre-emergent application in reduced or no-till soybeans followed by a planned in-crop application of a registered herbicide. **MERGE®** Adjuvant is required for optimum burndown activity.

OPTILL combines the two active ingredients: saflufenacil, a potent inhibitor of protoporphyrinogen-oxidase (PPO) belonging to herbicide mode of action Group 14, and imazethapyr, an inhibitor of acetocholactate synthase (ALS) belonging to the herbicide mode of action Group 2. Saflufenacil is rapidly absorbed by roots and foliage with limited systemic activity. Under active growing conditions, susceptible emerged weeds usually develop chlorotic and necrotic injury symptoms within hours and die within a few days. Susceptible germinating weed seeds will usually die as they reach the soil surface or shortly after emergence. Imazethapyr is an inhibitor of acetocholactate synthase (ALS) or also called acetohydroxyacid synthase (AHAS), a key enzyme in the biosynthesis of essential branched-chain amino acids. Plant death results from events occurring in response to ALS inhibition and low branched-chain amino acid production.

SAFETY AND HANDLING

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DIRECTIONS FOR USE

WEEDS, RATES AND TIMING

OPTILL at a rate of 147 g/ha is applied in tank-mix combination with glyphosate and MERGE Adjuvant as an early preplant or pre-emergent application in reduced or no-till soybeans. This treatment is recommended when there is a planned in-crop application of another registered herbicide.

OPTILL is compatible with all liquid glyphosate formulations registered for use as a pre-plant treatment prior to soybeans in which glyphosate is present as an isopropylamine salt, di-ammonium salt or potassium salt, as a tank mix-partner. Refer to the glyphosate label for rates and weeds controlled in addition to those listed below. Apply to weeds less than 15 cm in height, according to the glyphosate label. Refer to the glyphosate label for further recommendations, precautions and restrictions.

| | |
|---------------------|---|
| Timing | Early pre-plant surface application or pre-emergent application |
| Rate | 147 g/ha OPTILL + glyphosate (refer to glyphosate label for rates) |
| Water Volume | 100 to 200 L/ha |
| Surfactant/Adjuvant | Add MERGE Adjuvant at a rate of 1 L/ha. |
| Remarks | <p>For Pre-plant timing, apply pre-plant from 21 days prior to planting up to the day of planting.</p> <p>For Pre-emergent timing, apply prior to when the soybeans cause the ground to crack and no more than 3 days after planting.</p> <p>For Pre-emergent timing, DO NOT apply to coarse textured soils with less than 2% organic matter.</p> <p>DO NOT incorporate as injury may result.</p> |

OPTILL is recommended for the burndown control and early-season residual control of the following broadleaf and grass weeds.

| Weeds | Level of Control C = Control S = Suppression | | Maximum Weed Stage for Burndown Application |
|---|---|-------------------------------|---|
| | Burndown Control | Early season residual Control | |
| Broadleaf Weeds | | | |
| Broadleaf plantain | C | C | Beginning of flowering |
| Canada fleabane | C ³ | C | 20 leaf |
| Common chickweed | C | C | 8 leaf |
| Common ragweed | C ³ | C ^{1, 2} | 8 leaf |
| Dandelion (suppression only) | S | S | 6 leaf |
| Giant ragweed | C ³ | | 8 leaf |
| Lamb's-quarters | C | C ^{1, 2} | 8 leaf |
| Lady's thumb | C | | 6 leaf |
| Perennial sow thistle (top growth burndown control) | C | | 8 leaf |
| Prickly lettuce (top growth only) | C | C | 9 leaf |
| Redroot pigweed | C | C ^{1, 2} | 8 leaf |
| Shepherd's- purse | C | C | Full flower |
| Stinkweed | C | | Full flower |
| Wild buckwheat | C | | 6 leaf |
| Wild mustard | C | | 8 leaf |
| Grasses | | | |
| Barnyard grass | C | S | |
| Crabgrass (large) | C | S | |
| Foxtail (green, yellow) | C | S ¹ | |

Burndown control - Control of emerged weeds at the time of application

Early season residual control – Residual weed control up to the 4th trifoliolate of soybean

- ¹ Group 2 resistant biotypes exist. If the resistant biotypes are present, adequate residual control may not be achieved with this tankmix.
- ² Includes triazine-resistant biotypes
- ³ Includes glyphosate-resistant biotypes

FACTORS AFFECTING OPTILL PERFORMANCE

Residual pre-plant or pre-emergent applications of **OPTILL** must be activated by at least ½ inch of rainfall or sprinkler irrigation prior to weed seedling emergence. Reduced weed control may occur if adequate moisture is not received.

MIXING INSTRUCTIONS

1. When applying **OPTILL**, always start with a clean sprayer. Thoroughly clean the sprayer by flushing the system with water containing detergent. Refer to previously applied product labels for specific cleaning instructions.
2. Fill clean spray tank one-half full of clean water and start agitation system.
3. Using a calibrated measuring device, add the correct amount of **OPTILL** and continue to agitate.
4. Add the correct amount of glyphosate while continuing agitation.
5. If recommended, add the correct amount of MERGE Adjuvant to the tank last.
6. Continue agitation while filling the spray tank with the remaining amount of water.
7. Continue to agitate or run the by-pass system.
8. After any break in spraying operation, agitate thoroughly before spraying again. Check inside the tank to ensure that sprayer agitation is sufficient to remix the spray materials. Do not allow the mixture to sit overnight.
9. If an oil film starts to build up in the tank, drain it and clean the tank with strong detergent solution.
10. Immediately after use, thoroughly clean the sprayer by flushing the system with clean water containing detergent.

Dispose of all rinsings in accordance with provincial regulations.

SPRAYING INSTRUCTIONS

Use sprayers equipped with standard flat nozzles. The use of 80°-110° stainless steel flat fan nozzle is recommended for optimum spray coverage with nozzles tilted 45° forward to ensure better coverage.

Thoroughly clean all screens to prevent nozzle clogging. Apply in a water volume of 100 to 200 L/ha and at a pressure of 275 kPa. For applications to dense weed infestations and thick canopies, use the higher water volume.

Better coverage of the product results in enhanced control of weeds.

FOLLOW CROPPING

The crops listed below can be grown after an application of **OPTILL**.

| <p style="text-align: center;">Plant Back Crops</p> <p>In case of crop failure, the following crops can be planted in the same season¹</p> | <p style="text-align: center;">Rotational Crops</p> <p>The following crops can be planted anytime in the following season. Conduct a field bioassay (a test strip grown to maturity) the year BEFORE growing any other crop.</p> |
|--|--|
| <p style="text-align: center;">Soybeans Wheat (winter)²</p> | <p style="text-align: center;">Barley (spring) Corn (field) Dry beans Soybeans Wheat (spring, winter)²</p> |

¹ A second application of **OPTILL** cannot be made in the rescue crop.

² Winter wheat may be re-planted in cases of crop failure or as a rotational crop 100 days following an **OPTILL** application. Soil preparation for re-planting should be no deeper than 10 cm.

RESTRICTIONS AND LIMITATIONS

1. Clean sprayer thoroughly after use to avoid damage to the next crop sprayed.
2. **DO NOT** mix or apply **OPTILL** with any other adjuvant except as specifically recommended on this label.
3. **DO NOT APPLY BY AIR**
4. **DO NOT** apply to soybeans within 100 days of harvest.
5. **DO NOT** graze or feed treated soybean forage, hay or straw to livestock.
6. **ONLY ONE (1)** application of **OPTILL** may be made during the season. **DO NOT** over apply **OPTILL** herbicide. Over application may result in injury particularly if the crop is under stress.
7. **OPTILL** is only to be applied to soybeans in no-till or minimum tillage situations. **DO NOT** apply to soybeans where conventional tillage has been implemented.
8. For applications in soybeans, **DO NOT** incorporate **OPTILL** as injury may result.
9. **DO NOT** apply **OPTILL** herbicide when crop is under stress conditions because crop injury may result.
10. **DO NOT** let spray drift contaminate crops in adjacent fields.
11. **DO NOT** enter or allow worker entry into treated areas for 12 hours after application.

12. **DO NOT** contaminate irrigation/drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.
13. To reduce runoff from treated areas into aquatic habitats, avoid application to areas with a moderate to steep slope, compacted soil, or clay. Avoid application when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.
14. As this product is not registered for the control of pests in aquatic systems, **DO NOT** use to control aquatic pests.
15. In some cases, tank mixing a pest control product with another pest control product or a fertilizer can result in biological effects that could include, but are not limited to: reduced pest efficacy or increased host crop injury. The user should contact BASF at 1-877-371-2273 or www.agsolutions.ca for information before mixing any pesticide or fertilizer that is not specifically recommended on this label. The user assumes the risk of losses that result from the use of tank mixes that do not appear on this label or that are not specifically recommended by BASF.

BUFFER ZONES

DO NOT apply during periods of dead calm. Avoid application when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification. Boom height must be 60 cm or less above the crop or ground.

DO NOT APPLY BY AIR.

Use of the following spray methods or equipment **DO NOT** require a buffer zone; handheld or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands) and sensitive freshwater habitats (such as lakes, rivers sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands).

| Application Method | Crop | Buffer Zone for Protection of: | |
|--------------------|---------|--------------------------------|----------------------|
| | | Terrestrial Habitats (m) | Aquatic Habitats (m) |
| Field sprayer* | Soybean | 4 | 1 |

*For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labeled buffer zone can be reduced by 30%.

When a tank mixture is used, consult the labels of the tank mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, please note that **OPTILL** is both a Group 2 and a Group 14 herbicide. Any weed population may contain plants naturally resistant to Group 2 and/or Group 14 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance:

- Where possible, rotate the use of **OPTILL** or other Group 2 and Group 14 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 when such use is permitted. To delay resistance, the less resistance-prone partner should control the target weed(s) as effectively as the more resistance-prone partner.
- Herbicide use should be based on an integrated weed management program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical control methods), cultural (for example, higher crop seeding rates; precision fertilizer application method and timing to favour the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Monitor weed populations after herbicide application for signs of resistance development (for example, only one weed species on the herbicide label not controlled). If resistance is suspected, prevent weed seed production in the affected area if possible by an alternative herbicide from a different group. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- Have suspected resistant weed seeds tested by a qualified laboratory to confirm resistance and identify alternative herbicide options.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact BASF at 1-877-371-2273 or at www.agsolutions.ca.

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