

PMRA Approved Label (AO)  
2022-5671  
2022-11-29

Container Label

GROUP	2   14	HERBICIDE
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## SZ-0050 HERBICIDE

COMMERCIAL

**Water Dispersible Granules**

For Preplant Use on Field Pea, Soybeans and  
Spring Wheat (Including Durum)

**ACTIVE INGREDIENT:** Sulfentrazone..... 67.74%  
Tribenuron-methyl..... 4.84%

WARNING, CONTAINS THE ALLERGENS SULFITES AND MILK

**REGISTRATION NO. 34178 PEST CONTROL PRODUCTS ACT**

**READ THE LABEL AND BOOKLET BEFORE USING**



**POISON  
WARNING - EYE IRRITANT  
POTENTIAL SKIN SENSITIZER**

Net Contents: 155 gm – Bulk

FMC of Canada Limited  
6755 Mississauga Road, Suite 204  
Mississauga, ON L5N 7Y2  
1-833-362-7722

## **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.

## **FIRST AID**

**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 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 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.

**If swallowed:** Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

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

**IN CASE OF EMERGENCY, CALL 1-800-331-3148**

## **TOXICOLOGICAL INFORMATION**

Treat Symptomatically.

## **PRECAUTIONS**

### **KEEP OUT OF REACH OF CHILDREN**

Hazards to Humans and Domestic Animals

WARNING – EYE IRRITANT

POTENTIAL SKIN SENSITIZER

HARMFUL IF INHALED.

MAY BE HARMFUL IF SWALLOWED OR ABSORBED THROUGH SKIN.

AVOID BREATHING SPRAY MIST OR DUST USE. USE WITH ADEQUATE VENTILATION.  
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.

DO NOT CONTAMINATE ANY BODY OF WATER.

Apply only to agricultural crops when the potential for drift to areas of human habitation and 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.

### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. In addition, wear goggles or face shield during mixing and loading. Chemical-resistant gloves are not required while operating groundboom sprayers or during application within a closed cab.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Remove clothing immediately if pesticide gets inside. Then bathe thoroughly and put on clean clothing.

Do not enter or allow worker entry into treated areas for 12 hours following application.

May irritate skin. When using, do not eat, drink or smoke.

Wash thoroughly with soap and water after handling. Remove contaminated clothing immediately after use.

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.

### **STORAGE**

Store in original containers only. Store containers in a dry location. Carefully open containers. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

Store this product away from food or feed.

### **DISPOSAL**

#### **For refillable containers:**

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

**For returnable containers:**

Do not reuse this container for any purpose. For disposal, the empty container may be returned to the point of purchase (distributor/dealer).

**For 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.

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## SZ-0050 HERBICIDE

### COMMERCIAL

#### Water Dispersible Granules

For Preplant Use on Field Pea, Soybeans  
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## **GENERAL INFORMATION**

### **SECTION 1: 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.

### **SECTION 2: PRODUCT INFORMATION**

SZ-0050 Herbicide is a selective herbicide for preplant weed control in field peas, soybeans and spring wheat (including durum). SZ-0050 Herbicide is a water dispersible formulation intended for dilution with water for application. SZ-0050 Herbicide, when tank mixed with glyphosate, will control certain emerged weeds and provide pre-emergent control of Group 2 and Group 9 resistant kochia and pre-emergent suppression of Russian thistle.

Warm, moist growing conditions promote active weed growth and enhance the activity of SZ-0050 Herbicide by allowing maximum foliar uptake and contact activity. Weeds hardened off by environmental stress such as cold weather, drought stress or excessive heat may not be adequately controlled or suppressed, and regrowth may occur. For best results, ensure thorough spray coverage of target weeds.

SZ-0050 Herbicide rapidly stops growth of susceptible weeds. However, typical symptoms (discoloration) of dying weeds may not be noticeable for 1 to 3 weeks after application, depending on growing conditions and weed susceptibility. Degree of control and duration of effect depend on weed sensitivity, weed size, spray coverage and growing conditions. Activity of the herbicide mixture may be delayed by cold, dry conditions after application.

SZ-0050 Herbicide provides pre-emergent control of kochia (including Group 2 and Group 9 resistant biotypes) and pre-emergent suppression of Russian thistle. Best results are obtained when the soil is moist at the time of application and the application will be followed by at least 18 mm of rainfall or sprinkler irrigation within two weeks after application. If adequate rainfall is not received in a timely fashion, irrigate with a minimum of 18 mm of water. When activating moisture is delayed, or received after dry conditions, a reduced level of weed control may occur.

## **SAFETY AND HANDLING**

### **SECTION 3: PROPER HANDLING INSTRUCTIONS**

SZ-0050 Herbicide may not be mixed or loaded within 15 meters of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams or rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pads or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing or washing of this product into or from pesticide handling or application equipment or containers within 15 metres of any well, are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and

maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. Provinces may have in effect additional requirements regarding wellhead setbacks and operational containment.

SZ-0050 Herbicide must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

#### **SECTION 4: FIRST AID AND TOXICOLOGICAL INFORMATION**

##### **FIRST AID**

<p><b>If inhaled:</b> 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.</p>
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<p><b>If on skin or clothing:</b> 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.</p>
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<p><b>If in eyes:</b> 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.</p>
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<p><b>If swallowed:</b> Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give <b>any</b> liquid to the person. Do not give anything by mouth to an unconscious person.</p>
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Take container, label or product name and the Pest Control Product Registration Number with you when seeking medical attention.

<p><b>IN CASE OF EMERGENCY, CALL 1-800-331-3148</b></p>
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##### **TOXICOLOGICAL INFORMATION**

Treat Symptomatically.

#### **SECTION 5: PRECAUTIONS, PROTECTIVE CLOTHING AND EQUIPMENT**

##### **PRECAUTIONS**

##### **KEEP OUT OF REACH OF CHILDREN**

Hazards to Humans and Domestic Animals



WARNING – EYE IRRITANT

POTENTIAL SKIN SENSITIZER

HARMFUL IF INHALED.

MAY BE HARMFUL IF SWALLOWED OR ABSORBED THROUGH SKIN.

AVOID BREATHING SPRAY MIST OR DUST USE. USE WITH ADEQUATE VENTILATION. AVOID CONTACT WITH SKIN, EYES AND CLOTHING.

DO NOT CONTAMINATE ANY BODY OF WATER.

Apply only to agricultural crops when the potential for drift to areas of human habitation and 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.

### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. In addition, wear goggles or face shield during mixing and loading. Chemical-resistant gloves are not required while operating groundboom sprayers or during application within a closed cab.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Remove clothing immediately if pesticide gets inside. Then bathe thoroughly and put on clean clothing.

Do not enter or allow worker entry into treated areas for 12 hours following application.

May irritate skin. When using, do not eat, drink or smoke.

Wash thoroughly with soap and water after handling. Remove contaminated clothing immediately after use.

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.

### **SECTION 6: ENVIRONMENTAL PRECAUTIONS**

Toxic to small wild mammals.

Toxic to aquatic organisms and non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.

SZ-0050 Herbicide is persistent and may carryover. It is recommended that any products containing sulfentrazone not be used in areas treated with this product during the previous season.

This product demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. **DO NOT** use on coarse soils.

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 filter strip between the treated area and the edge of the water body.

#### IMPORTANT INFORMATION – READ LABEL BEFORE USING

Injury to or loss of desirable trees, shrubs, flowers, vegetables, fruits or other vegetation may result from failure to observe the following: Do not apply, drain or flush equipment on or near desirable trees or other 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 use on lawns, walks, driveways, tennis courts, or similar areas. Prevent drift of spray to desirable plants.

Do not apply in high winds.

Carefully observe sprayer clean-up instructions, as spray tank residue may damage crops other than spring wheat, durum wheat, winter wheat, or spring barley. Thoroughly clean all traces of tank mix from application equipment immediately after use. Flush tank, pump, hoses, and boom with several changes of water after removing nozzle tips and screens (clean these parts separately). Wash away any spray mixture from the outside of spray tank, nozzle or spray rig.

#### **USE PRECAUTIONS:**

Do not apply to irrigated land where tail water will be used to irrigate other cropland.

Do not remove soil from treated fields for use on lawns, in gardens or for backfill.

Do not use on highly variable soils that have large gravelly or sandy areas, eroded knolls or calcium deposits.

**OVERSRAY OR DRIFT TO IMPORTANT WILDLIFE HABITATS SUCH AS SHELTERBELTS, WETLANDS, SLOUGHS OR DRY SLOUGH BORDERS, OR WOODLOTS, SHOULD BE AVOIDED.** Observe buffer zones specified under DIRECTIONS FOR USE.

## **SECTION 7: STORAGE**

Store in original containers only. Store containers in a dry location. Carefully open containers. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

Store this product away from food or feed.

## **SECTION 8: DISPOSAL**

### **For refillable containers:**

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

### **For returnable containers:**

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### **For 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.

## **DIRECTIONS FOR USE**

### **SECTION 9: CROPS AND WEEDS CONTROLLED**

#### **FIELD PEA, SOYBEAN AND SPRING WHEAT (INCLUDING DURUM) PREPLANT APPLICATION**

Apply SZ-0050 Herbicide at 155 g product/ha tank mixed with glyphosate (present as potassium salt, isopropylamine salt, ammonium salt) at 450 - 810 g ae/ha in a total spray volume of 100 L/ha. Fields treated with this tank mix can be seeded to field pea, soybean or spring wheat (including durum) a minimum of 24 hours after application.

Use rate of SZ-0050 Herbicide	Use rate of glyphosate	Weed Application Stage	Weeds Controlled	Weeds Suppressed *
155 g/ha	450 g ae/ha	Pre-emergent**	Kochia (including Group 2 and Group 9 resistant biotypes)	Russian thistle
		Up to 8 cm	Canada fleabane Common ragweed Narrow-leaved hawk's beard	Scentless chamomile
		Up to 15 cm	Cleavers Dandelion Downy brome Flixweed Giant foxtail Green foxtail Hemp nettle Kochia Lady's thumb Lamb's-quarters Persian darnel Redroot pigweed Russian thistle Stinkweed Volunteer barley Volunteer canola (including glyphosate-tolerant varieties) Volunteer flax Volunteer wheat Wild mustard Wild oats	
		Up to 3-leaf	Cow cockle Wild buckwheat	
		Up to 8-leaf	Common chickweed	
		Rosette		Canada thistle White cockle
		810 g ae/ha	Weeds up to 15 cm in height	All annual grasses listed above plus crab grass (large and smooth) and annual blue grass.  All annual broadleaved

			weeds listed above plus prickly lettuce, shepherd's purse, annual sow thistle, and narrow-leaved vetch	
<p><b>Injury to pulse crops may occur on coarse-textured soils, low in organic matter (less than 3%), or in fields with variable soils, gravelly areas, sandy areas or eroded knolls. Avoid spraying SZ-0050 Herbicide when planting pulse crops in soils containing more than 50% sand.</b></p> <p>Make one pre-plant application every other year.  Do not use on any type of soil with an organic matter content greater than 6%.  Do not apply in fine textured soils with less than 1.5% organic matter.  Do not apply to soils classified as coarse-textured soils.  Do not use on soils with a pH of 7.8 or greater.  Follow all directions on the glyphosate product labels.</p>				

\* Weed suppression is a visual reduction in weed competition (reduced population or vigour) as compared to an untreated area. Degree of suppression will vary with size of weed and environmental conditions prior to and following treatment.

\*\*SZ-0050 Herbicide provides pre-emergent control of kochia (including Group 2 and Group 9 resistant biotypes) and pre-emergent suppression of Russian thistle. Best results are obtained when the soil is moist at the time of application and the application will be followed by at least 18 mm of rainfall or sprinkler irrigation within two weeks after application. If adequate rainfall is not received in a timely fashion, irrigate with a minimum of 18 mm of water. When activating moisture is delayed, or received after dry conditions, a reduced level of weed control may occur.

Residual weed control of kochia and/or suppression of Russian thistle may be reduced when SZ-0050 Herbicide is applied where heavy crop trash such as leaves and branches and /or weed residues exists.

When tank-mixes are permitted, read and observe all label directions, including rates and restrictions 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.

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 FMC at 1-833-362-7722 for information before mixing any pesticide or fertilizer that is not specifically recommended on this label.

**SECTION 10: APPLICATION INFORMATION**

**SECTION 10.1: GENERAL APPLICATION INSTRUCTIONS**

**DO NOT** apply using aerial application equipment.

**DO NOT** contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

**DO NOT** apply SZ-0050 Herbicide (or any other product containing sulfentrazone) to spring wheat if an application of FOCUS® Herbicide (or any other product containing pyroxasulfone) was applied in the previous fall.

Do not apply to powdery soils or soils where wind may displace the soil, unless irrigation can be applied immediately after application.

As this product is not registered for the control of pests in aquatic systems, **DO NOT** use to control aquatic pests.

Heavy rainfall soon after application may result in visual crop injury or possible yield reduction. Conditions such as thin crop stand, sandy soil or low soil organic matter may increase the severity of injury.

Do not tank mix with Chateau® herbicides (flumioxazin) or with other products containing sulfentrazone.

A minimum of 100 L of spray solution per ha should be used to ensure uniform spray coverage. Nozzle selection should meet manufacturer's spray volume and pressure recommendations for pre-emergence and post-emergence herbicide applications. The spray solution should have a pH between 5.0 and 9.0.

Water must be used as the carrier for SZ-0050 Herbicide. Do not allow spray mixtures to sit overnight due to potential settling of product and difficulty in resuspending may occur. Avoid spray drift to adjacent plants as injury to other plants may occur.

### **Ground Application**

Utilize a boom and nozzle sprayer or boomless ground sprayer equipped with the appropriate nozzles, spray tips and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles and pressures that produce a medium spray as classified by the American Society of Agricultural Engineers (ASAE) to avoid spray drift or inadequate foliar and soil coverage. Consult with spray nozzle manufacturer's charts to determine the correct nozzle and pressure combination required to achieve a medium spray. Utilize nozzles that produce minimal amounts of fine spray droplets to avoid spray drift or inadequate foliar and soil coverage. Do not exceed 175 kPa spray pressure unless otherwise required by the manufacturer of drift reducing nozzles or boomless application systems. Apply a minimum of 100 litres of finished spray per hectare by ground. Be aware that spray pattern overlaps and slower ground speeds while starting, stopping or turning while spraying may result in excessive application and subsequent crop response.

### **Spray Drift Management**

Minimizing spray drift at the application site is the responsibility of the applicator and the grower. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

Field sprayer application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply with spray droplets smaller than the American

Society of Agricultural Engineers (ASAE S572.1) medium classification. Boom height must be 60 cm or less above the crop or ground.

### **Controlling Spray Droplet Size**

**Volume:** Use high flow rate nozzles to apply the greatest practical spray volume. Nozzles with higher rated flow generally produce larger droplets.

**Pressure:** When higher flow rates are needed, use higher flow rate nozzles rather than increasing spray pressure. Do not exceed the nozzle manufacturer's recommended pressures. Lower pressure produces larger droplets in many types of nozzles.

**Nozzle Type:** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles for ground applications.

Do not apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification. Consult with spray nozzle manufacturer's charts to determine the correct nozzle and pressure combination required to achieve a medium spray. Boom height must be 60 cm or less above the crop or ground.

### **Rainfall Requirement**

For pre-emergent control of listed weed species, SZ-0050 Herbicide requires adequate rainfall for herbicidal activation. The ultimate amount of moisture, whether supplied by rainfall or irrigation, is dependent on several factors. These factors include but are not limited to existing soil moisture at application, soil type, organic matter and pH. In crop situations, dependent on rainfall, SZ-0050 Herbicide can await activating moisture for extended periods (10 to 14 days or longer) depending on the soil parameters described above. Once activated, SZ-0050 Herbicide will provide activity on existing weeds. In circumstances where prolonged periods without rainfall or irrigation occur, alternative or additional weed management practices (cultivation or post-applied herbicides) may be required.

### **Influence of Soil Type, Organic Matter and pH on SZ-0050 Herbicide and Crop Response**

Soil organic matter content can vary widely and independently of soil type and requires an accurate analysis of representative soil samples to determine its content. Soil pH also exerts a dramatic effect on sulfentrazone availability in the soil solution. As soil pH increases, sulfentrazone availability increases. Determining soil pH requires an accurate analysis of representative soil samples. **Do not use on soils with a pH of 7.8 or greater.**

The total amount of sulfentrazone available in solution, in any given soil, is determined by the interaction of soil type (primarily clay content), % organic matter and pH. The application timing (relative to the emergence of the crop and weeds) and amount of rainfall and/or irrigation received will ultimately determine, in conjunction with the soil parameters and pH, the amount of sulfentrazone in soil solution.

It is important to note that irrigation with highly alkaline water (high pH) following an SZ-0050 Herbicide soil application can also significantly increase the amount of sulfentrazone available, in the soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse

crop response. This response will ultimately depend on initial SZ-0050 Herbicide application rate, timing, amount and pH of irrigation water and sensitivity of the crop and its growth stage when irrigated. The risk of adverse crop response will lessen with the advances in growth stages among most crops.

**Sulfentrazone is persistent and will last in the soils (carryover) for one to two years. DO NOT APPLY SZ-0050 Herbicide TO FIELDS PREVIOUSLY TREATED WITH SZ-75 Herbicide or AUTHORITY 480 Herbicide or any other product that contains sulfentrazone IN CONSECUTIVE YEARS (24 MONTHS). In case of drought in any of those years, a subsequent application of SZ-0050 Herbicide should be further delayed by the equivalent number of years in which drought occurred. SZ-0050 Herbicide requires a minimum of 18 mm of rain or irrigation water to be effective.**

### **SECTION 10.2: BUFFER ZONES**

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).

Method of application	Crop	Buffer Zones (metres) Required for the Protection of:		
		Freshwater Habitat of Depths:		Terrestrial Habitat
		Less than 1 m	Greater than 1 m	
Field sprayer	Field Pea, Soybean, Spring Wheat (including Durum)	1	0	10

When tank mixes are permitted, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

The spray buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Spray Buffer Zone Calculator on the Pesticides portion of the Canada.ca website

### **SECTION 10.3: ROTATIONAL CROP GUIDELINES**

The following table shows the minimum interval in months from the time of the last SZ-0050 Herbicide application until SZ-0050 Herbicide treated soil can be re-planted to the crops listed as follows.

**Rotational crops and replant intervals for SZ-0050 Herbicide.**

Rotational Crop	Replant Interval (Months)



Field pea, soybeans, spring and durum wheat	0
Flax	2
Winter wheat	4
Alfalfa, barley, broccoli, cabbage, canola, cauliflower, chickpea, corn (field), faba bean horse radish, potatoes, sunflowers, tame mustard, tomato (transplants)	12
Corn (sweet and pop), lentils, sorghum	24

For crops listed in the rotational crop table, the minimum replant interval listed in the table must be observed. For crops not listed in the rotational crop table, **A MINIMUM ROTATIONAL CROP INTERVAL OF 36 MONTHS must be observed, and a representative bioassay of the field must be conducted with the rotational crop and adequate soil moisture to evaluate potential crop sensitivity.**

If there is a lack of adequate or normal soil moisture due to drought conditions following an application of SZ-0050 Herbicide, the minimum rotational crop interval listed in the table must be extended for one additional year and a representative bioassay of the field must be conducted with the potential rotational crop and adequate soil moisture to determine the crop sensitivity to SZ-0050 Herbicide.

## **REPLANTING INSTRUCTIONS**

If initial planting of labeled crops fails to produce a stand, only labeled crops for SZ-0050 Herbicide, may be planted. **DO NOT** retreat field with SZ-0050 Herbicide. Do not plant treated fields with any crop at intervals that are inconsistent with the Rotational Crop Guidelines on this label. When replanting use minimum soil tillage to preserve the herbicide barrier and achieve maximum weed control.

## **SECTION 11: RESTRICTED ENTRY INTERVAL**

**DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

### **IMPORTANT**

- **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 area, consult the provincial agency responsible for pesticide regulation.
- **DO NOT** apply more than the allowed amount per hectare per twelve-month period. The twelve-month period is considered to begin upon the initial application.

## **SECTION 12: MIXING AND LOADING INSTRUCTIONS**

### **Spray Tank Preparation**

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Follow the spray tank clean out procedures specified on the label of product previously applied before adding SZ-0050 Herbicide to the tank.

### **Mixing and Loading Instructions**

SZ-0050 Herbicide is a water dispersible granule intended for dilution with water. For best results, fill spray tank with one half of the volume of clean water needed for the area to be treated. Start the agitation system. Slowly add the SZ-0050 Herbicide to the spray tank. Complete filling the spray tank to the desired level. Once SZ-0050 Herbicide is thoroughly dispersed, add the required amount of glyphosate. Continuous spray tank agitation is required at all times to maintain a uniform spray solution.

Use the SZ-0050 Herbicide mixture immediately after mixing.

Do not store the sprayer overnight or for any extended period of time with the sulfentrazone spray mixture remaining in the tank.

Premixing SZ-0050 Herbicide spray solutions in nurse tanks is not recommended.

**Tank Mixtures:** Fill spray tank one-half to two-thirds full of water; with agitator operating add the recommended amount of ingredients using the following order:

- **Wettable powders and dispersible granules**
- **Agitate tank mix thoroughly**
- **Micro-encapsulated suspensions**
- **Liquid flowables and suspensions**
- **Emulsifiable concentrate formulations**
  - Fill spray tank nearly full of water
- **Glyphosate formulations**
- **Surfactants**
  - Complete filling the spray tank to the desired level

Maintain agitation during filling, mixing and application. When using drift reducing agents, follow specific product label instructions for order of addition to spray tank.

### **SECTION 13: SPRAYER EQUIPMENT CLEANOUT**

After spraying SZ-0050 Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure:

1. Drain sprayer tank, hoses, and spray boom. Use a high-pressure detergent wash to remove physical sediment and residues from the inside of the sprayer tank and thoroughly rinse. Then thoroughly flush all sprayer hoses, booms, and nozzles with clean water.
2. Fill the tank with clean water, and then add 3 litre household AMMONIA (containing minimum of 3% ammonia) or equivalent amount of a sprayer tank cleaner containing ammonia, per 100 litres of water.

3. Flush solution through boom and hoses, and then add more water to completely fill tank. Allow to sit for 15 minutes with agitation.
4. Drain the tank.
5. Remove the nozzles, screens, and boom end caps and clean separately in a bucket containing ammonia cleaning agent and water.
6. Thoroughly rinse the tank with clean water for a minimum of 5 minutes, flushing water through the hoses and boom.
7. Properly dispose of all cleaning solution and rinsate in according with provincial guidelines and regulations.

Do not drain or flush equipment on or near desirable trees or plants.

Do not contaminate any body of water including irrigation water that may be used on other plants or crops.

**CAUTION:** Do not use ammonia with chlorine bleach. Using ammonium with chlorine bleach will release a gas with a musty chlorine odour that can cause eye, nose, throat, and lung irritation. Do not clean equipment in an enclosed area.

#### **SECTION 14: RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance management, SZ-0050 Herbicide is a Group 2 and Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to SZ-0050 Herbicide and other Group 2 or Group 14 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. 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:

- 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.
- Where possible, rotate the use of SZ-0050 Herbicide or other Group 2 and Group 14 herbicides within a growing season (sequence) or among growing seasons with different groups that control the same weeds in a field.
- 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 FMC at <https://ag.fmc.com/ca/en>

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