



## SB-03™ Herbicide

GROUP	2	HERBICIDE
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Wettable granules

FOR SALE FOR USE ON SOYBEANS IN EASTERN CANADA ONLY

COMMERCIAL

CAUTION-EYE IRRITANT

REGISTRATION NO. 32649 PEST CONTROL PRODUCTS ACT

READ THE LABEL AND THIS BOOKLET BEFORE USING

ACTIVE INGREDIENT:	Chlorimuron-ethyl	6.62%
	Imazethapyr	55.15%

Warning, contains the allergen sulfites

NET CONTENTS: 36 g – 1000 kg

Production Agriscience Canada Company  
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## PRECAUTIONS

- KEEP OUT OF REACH OF CHILDREN.
- Avoid breathing spray mist. Use with adequate ventilation
- Avoid contact with eyes.
- Keep the container or bag away from water.
- Do not contaminate any body of water.
- Do not enter or allow others to enter treated areas during the restricted entry interval of 12 hours after application.
- Do not contaminate food or feed products.
- May irritate eyes.
- Wear a long sleeved shirt, long pants, chemical resistant gloves and goggles or face shield during mixing, loading, application, cleanup and repair. Do not eat, drink or smoke when using.
- Wash hands and face before eating, drinking, smoking and using the toilet.
- Wash thoroughly with soap and water after handling.
- Take a shower IMMEDIATELY after work.
- Store and wash all protective clothing separately from normal laundry.
- Clean protective equipment (gloves, goggles, face shield) upon removal with soapy water.
- Clean spray equipment thoroughly after use. Wash in detergent and hot water before reuse.
- Wear freshly laundered clothes daily.
- DO NOT APPLY BY AIR.

## IMPORTANT

Injury to or loss of desirable trees or 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 contaminate any body of water, including irrigation water that may be used on other crops. Carefully observe sprayer clean-up instructions, as spray tank residue may damage crops other than soybeans.

DO NOT APPLY BY AIR.

APPLY SB-03™ HERBICIDE WITH A RECOMMENDED SURFACTANT.

## FIRST AID

**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 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 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 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.

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

For medical emergencies call 1-800-667-3852 (24 hours).

**TOXICOLOGICAL INFORMATION:** Treat symptomatically

## **ENVIRONMENTAL HAZARDS**

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

## **STORAGE**

Store product in original container in a secure, dry area away from food or feed. Not for use or storage in or around the home. Keep container tightly closed. Keep product in original container or bag away from moisture. DO NOT store below 0°C. If the product is exposed to temperatures below 0°C during shipment or storage, make sure the product has thawed completely, and shake the container vigorously.

## **DISPOSAL**

1. Triple-or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the empty container in accordance with provincial requirements.

For information on the 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.

## **GENERAL INFORMATION**

SB-03 Herbicide is recommended for selective pre-emergence and post-emergence weed control either pre-plant, pre-emergence or early post-emergence in conventional or glyphosate tolerant soybeans. SB-03 Herbicide is formulated as a wettable granule to be mixed in water and applied as a uniform broadcast spray. It is non-corrosive, non-flammable, non-volatile. Keep product away from excess moisture or physical damage during storage and prior to mixing in the spray tank. Do not reuse container or bag.

SB-03 Herbicide can be applied with a recommended surfactant to the main flush of actively growing weeds. Warm, moist growing conditions promote active weed growth and enhance the activity of SB-03 Herbicide by allowing maximum foliar uptake and contact activity. Weeds hardened off by environmental stress may not be adequately controlled and regrowth may occur. SB-03 Herbicide may only be applied using ground equipment. For best results, ensure thorough spray coverage of target weeds.

Applications of SB-03 Herbicide made prior to weed emergence require moisture for activation. Applications of SB-03 Herbicide require sufficient water within 7-10 days of application to moisten the soil to a depth of 5 cm for activation. If adequate moisture is not received within 7 to 10 days of application, perform a shallow inter-row cultivation 5-8 cm deep using a roller or S-tine cultivator to control escaped weeds until the field receives adequate moisture.

SB-03 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. Favourable growing conditions following treatment promote the activity of SB-03 Herbicide while cold, dry conditions delay the activity.

Degree of control and duration of effect depend on weed sensitivity, weed size, crop competition, growing conditions and spray coverage.

### **ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY**

The following precautions are recommended for application of SB-03 HERBICIDE on soybean.

SB-03 Herbicide applications made during or immediately following a large and rapid fluctuation in temperature (20°C or greater difference between night time lows and daytime highs) which stresses the crop may increase the potential for crop injury.

Apply SB-03 Herbicide when temperature is expected to be below 28 degrees C within 12 hours of application.

Apply when the minimum temperature in the 24 hours before and after application is above 5 degrees C. If soybeans have been injured by frost, wait at least 48 hours before applying the herbicide(s).

SB-03 Herbicide is toxic to aquatic organisms.

DO NOT apply this product directly to aquatic habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, ditches, and wetlands), estuaries, or marine habitats.

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

### **DIRECTIONS FOR USE**

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

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

Do not enter or allow entry into treated areas during the restricted-entry interval of 12 hours.

Apply only when the potential for drift to areas of human habitation or areas of human activity (houses, cottages, schools and recreational areas) is minimal. Take into consideration wind speed, wind direction, temperature inversion, application equipment and sprayer settings.

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) medium classification. Boom height must be 60 cm or less above the crop or ground.

**DO NOT** apply by air

Make only one application of SB-03 Herbicide per season.

### **RATES AND TIMING**

#### **PRE-EMERGENT APPLICATION**

For the season long control of dandelion (up to bolting), lamb's quarters<sup>1</sup>, redroot pigweed<sup>1</sup>, smartweed<sup>1</sup>, lady's thumb<sup>1</sup>, wild mustard<sup>1</sup>, velvetleaf<sup>1</sup>, common ragweed<sup>1</sup>, eastern black nightshade<sup>1</sup>, green and yellow foxtail<sup>1</sup>, barnyard grass<sup>1</sup> and old witchgrass<sup>1</sup>, apply 136 grams per hectare of SB-03 Herbicide, plus a non-ionic surfactant such as Agral 90 at 0.2% v/v when weeds are emerged, pre-plant or post plant pre-emergence to soybeans, either conventional or glyphosate tolerant. SB-03 Herbicide applied in pre-plant or preemergence timing may be tank-mixed with glyphosate (present as potassium salt, isopropylamine salt, or

diammonium salt) at 900 grams active per hectare for control of emerged weeds. When SB-03 Herbicide is tank mixed with a glyphosate herbicide, a non-ionic surfactant is not required.

<sup>1</sup> Apply SB-03 Herbicide prior to weed emergence or to emerged weeds prior to the 2 leaf stage.

### **POST-EMERGENT APPLICATION**

Optimum timing of SB-03 Herbicide for control of yellow nutsedge, eastern black nightshade and lamb's-quarters, usually occurs when soybeans are in the cotyledon to 3 trifoliolate stage of growth. Do not apply SB-03 Herbicide after the initiation of flowering. SB-03 Herbicide can be applied up to 100 days before harvest.

For post-emergent applications apply 91 grams of SB-03 Herbicide per hectare. A non-ionic surfactant such as Agral 90, Citowett Plus, or Ag-Surf must also be used at 0.2% v/v. For post-emergent use on glyphosate tolerant soybeans tank-mix SB-03 Herbicide with glyphosate (present as potassium salt, isopropylamine salt, or diammonium salt) at 900 grams active per hectare. When SB-03 Herbicide is tank mixed with a glyphosate herbicide, a non-ionic surfactant is not required.

For best results, apply to young actively growing weeds before the soybean canopy closes. Weeds that emerge after treatment may not be controlled.

**NOTE:** Do not apply to soybeans that have been stressed by severe weather conditions such as frost or hot, humid weather as crop injury may result.

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 Production Agriscience Canada Company at 1-800-667-3852 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 Production Agriscience Canada Company.

## **SB-03 HERBICIDE**

### **MIXING INSTRUCTIONS**

1. Fill clean tank about 1/4 full with fresh water.
2. Turn on full agitation.
3. Add the proper amount of SB-03 Herbicide to the water in the spray tank with the agitator running. Maintain full agitation until product is fully dispersed. Continuous agitation is required to keep the product in suspension.
4. After SB-03 Herbicide has been well mixed and is in suspension, add the tank mix partner, if applicable.
5. Add a recommended amount of spray adjuvant (if required).
6. Fill the remainder of the spray tank with clean water.

On repeat tank loads, ensure that the amount of spray solution left in the tank from the previous load is less than 10% of the volume about to be mixed.

Agitation is required for uniform mixing and application. The optimum water volume for SB-03 Herbicide application is 140-190 litres of water per hectare (minimum of 100 litres of water per hectare). Flat fan nozzles are recommended. Use 50 mesh filter screens or larger. Use spray preparation of SB-03 Herbicide within 24 hours or product degradation may occur resulting in a loss of weed control. Use vigorous agitation to thoroughly disperse spray mixtures that have been allowed to stand in the tank.

**NOTE:** SB-03 Herbicide will degrade in acidic or highly alkaline water. Mix no more than can be used in one day. If spraying is interrupted, thoroughly re-agitate the spray mixture before resuming spraying.

Do not mix or load where there is potential to contaminate wells or aquatic systems.

## SPRAYER CLEANUP

To avoid subsequent injury to crops other than soybeans immediately after spraying and prior to spraying other crops, thoroughly remove all traces of SB-03 HERBICIDE from mixing and spray equipment as follows:

1. Drain tank; then flush tank, boom and hoses with clean water for a minimum of ten minutes. Visually inspect tank to assure removal of all visible residues of SB-03 Herbicide. If necessary, repeat step 1. **DO NOT CLEAN SPRAY EQUIPMENT NEAR WELLS, AQUATIC SYSTEMS, OR OTHER WATER SOURCES, OR NEAR DESIRABLE VEGETATION.**
2. Fill tank with clean water while adding 1 litre household ammonia (containing a minimum 3% ammonia) per 100 litres of water. Flush solution through boom and hoses, and then add more water to completely fill tank. Allow to sit for 15 minutes with agitation. Again flush the hoses, boom and nozzles with the cleaning solution and drain tank.
3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
4. Repeat Step 2.
5. Thoroughly rinse the tank with clean water for a minimum of 5 minutes, flushing water through the hoses and boom.

## REPLANTING TO OTHER CROPS

SB-03 Herbicide is degraded by natural soil processes, and field tests have shown that the following crops may safely be planted at the prescribed interval following soybeans that have been treated with SB-03 Herbicide. The recropping intervals are dependent on the pH of the soil, as well as the sensitivity of the specific rotational crop.

### Replanting Interval (Months)

Soil pH	Winter Wheat	Field Corn,	White Bean	Soybeans
≤7.0	3	10	10	Anytime
>7.0≤7.4	3	10	10	Anytime
>7.4≤7.8	4	10	Do Not Plant	Anytime
>7.8≤8.0	4	Do Not Plant*		Anytime

For other crops, a field bioassay is required before planting. A successful field bioassay means growing to maturity a test strip of the crop(s) intended for production the following year.

\*Pending a successful field bioassay

## FIELD BIOASSAY

Select a representative area or areas of the field previously treated with SB-03 Herbicide to plant your bioassay crop(s). Be sure to consider factors such as size of field, soil texture, drainage and turn-around areas when selecting the site(s) that are most representative of the soil conditions in the field. On large fields, more than one site may be needed in order to obtain reliable results.

Plant the test strips perpendicular to the direction in which the field was sprayed. The strips should be long enough to cross the width of several spray swaths. Large test strip areas are more reliable than small ones.

Use standard tillage and seeding equipment to plant the bioassay. Prepare a seed bed and plant the crops and varieties you want the option of growing the following year. It is important to use the same planting time, conditions, techniques and cultural practices you normally use to plant and grow the bioassay crop(s). Also plant into an adjacent area not treated with SB-03 Herbicide to use as a comparison.

As the crop(s) emerges and grows, examine these key points in SB-03 Herbicide treated and non-treated areas:

- crop stand
- plant colour and vigour
- root development
- yield
- rate of growth

Allow the bioassay crop(s) to grow to maturity while making your observations. Do not overspray the test strips with herbicides that may damage the bioassay crop(s). If the bioassay indicates that SB-03 Herbicide residues are still present, continue cropping only to those crops listed on the label and do not rotate to other crops until bioassay results indicate that susceptible crops are growing normally.

### **USE PRECAUTIONS**

Do not apply SB-03 Herbicide during periods of intense rainfall or to soils saturated with water. Do not apply directly to standing or running water. Do not apply in areas where surface water from the treatment site can run off to adjacent cropland, either planted or to be planted, or into bodies of water (such as streams, ponds, rivers, lakes, and irrigation water), wetlands, or wells. Applications should only be made when there is no hazard of spray drift contaminating non-target land areas since very small quantities of the SB-03 Herbicide spray solution may severely injure susceptible crops and other sensitive terrestrial habitats during both growing and dormant periods.

Do not apply to soybeans that have been stressed by severe weather conditions, frost, low fertility, drought, water saturated soil, disease or insect damage as crop injury may result.

Under extreme weather conditions, such as hot, dry weather, excessive moisture, or frost, weed control may be reduced.

Because soybean varieties differ in their tolerance to herbicides, limit first use of SB-03 Herbicide to a small area of each variety prior to adoption as a field practice.

Overspray or drift to important aquatic and terrestrial wildlife habitats should be avoided. Leave a 16 metre buffer zone between the last spray swath and bodies of water such as ponds, lakes, rivers, and streams. Leave a 39 metre buffer zone between the last spray swath and wetlands, vegetated areas at the edges of bodies of water, woodlots and shelterbelts, and other terrestrial wildlife habitats.

SB-03 Herbicide must not be applied within 100 days of harvest.

Make only one application of SB-03 Herbicide per season.

Do not graze the treated crop or cut for hay; sufficient data is not available to support such use.

Do not apply SB-03 Herbicide to soybeans grown on soil of pH  $\geq$  8.0 due to risk of rotational crop injury.

**DO NOT APPLY SB-03 BY AIR. APPLY WITH GROUND EQUIPMENT ONLY.**

DO NOT over apply SB-03 Herbicide. Over application may result in injury particularly if the crop is under stress.

Emerged weeds in pre-emergent applications which reach the 2 - 3 true leaf stage might be considered as escapes. Shallow cultivation or application of a post-emergent herbicide is recommended. DO NOT cultivate deeply.

Post-emergent application of SB-03 Herbicide to soybeans may cause stunting. This condition is the result of stem inter-node shortening and does not cause yield reductions if SB-03 Herbicide has been used at label rates and following label recommendations.

### **RESISTANCE-MANAGEMENT RECOMMENDATIONS**

For resistance management, SB-03 Herbicide is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to SB-03 Herbicide and other Group 2 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:

- ◆ Where possible, rotate the use of SB-03 Herbicide or other Group 2 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 chemical control 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 your local Production Agriscience Canada Company representative or the Production Agriscience Canada Company hotline at 1-800-667-3852.

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Label Code: CN-32649-001-E

Specimen Label Notes  
Branding update