GROUP 2 14 HE

HERBICIDE

SAFFOLA Herbicide

For weed control in soybean

FOR USE IN ONTARIO & QUEBEC

HERBICIDE

WATER DISPERSIBLE GRANULES

COMMERCIAL (AGRICULTURAL)

ACTIVE INGREDIENTS:	Saflufenacil	17.8%
	Imazethapyr	50.2%

REGISTRATION NO. 35269 PEST CONTROL PRODUCTS ACT

CAUTION - EYE IRRITANT

READ THE LABEL AND BOOKLET BEFORE USING

KEEP OUT OF REACH OF CHILDREN

NET CONTENTS: 0.25 - 20 kg

SHARDA Cropchem Limited

2nd Floor, Prime Business Park Dashrathlal Joshi Road Vile Parle (West) Mumbai - 400056, India Canadian Agent: **SHARDA Cropchem Limited** 63 Kingsview Blvd Etobicoke, Ontario, CA M9R 1V1 1-844-810-5720 1-416-840-5639

PRECAUTIONS

- 1. KEEP OUT OF REACH OF CHILDREN
- 2. **DO NOT** take internally.
- 3. May irritate eyes. Avoid contact with eyes or 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 coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab. In addition, wear a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested during mixing, loading, clean-up and repair.
- 8. Wear a suitable dust mask approved by NIOSH/MSHA when handling.
- 9. 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.
- 10. Clean protective equipment (gloves, goggles, face shield) upon removal with soapy water.
- 11. Clean spray equipment thoroughly after use.
- 12. 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.
- 13. **DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

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 PRECAUTIONS

Toxic to non-target terrestrial plants and aquatic organisms. Observe spray 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 filter strip between the treated area and the edge of the water body.

STORAGE

- 1. Store this product away from food or feed.
- 2. Store the product in original, tightly-closed container and do not allow water to be introduced into this container.
- 3. DO NOT ship or store the product near seed or fertilizers.
- 4. Store the product in a cool, dry, locked, well-ventilated area without floor drain.
- 5. 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/territorial requirements.

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Containers that can be refilled for the user by the distributor/dealer

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.

Disposal of unused, unwanted product

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial/territorial regulatory agency. Contact the manufacturer and the provincial/territorial 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.

GROUP 2 14 HERBICIDE

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For weed control in soybeans

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GENERAL INFORMATION

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

SAFFOLA Herbicide is applied in tank-mix combination with glyphosate as an early pre-plant 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.

SAFFOLA Herbicide 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.

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Toxic to non-target terrestrial plants and aquatic organisms. Observe spray 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 filter strip between the treated area and the edge of the water body.

STORAGE

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NOTICE TO USER

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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.

WEEDS, RATES AND TIMING

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

SAFFOLA Herbicide 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, diammonium 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	
Rate	147 g/ha SAFFOLA Herbicide + 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	For Pre-plant timing, apply pre-plant from 21 days prior to planting up to the day of planting.
	DO NOT incorporate or apply after planting as injury may result.

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

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

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

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

¹ Group 2 resistant biotypes exist. If the resistant biotypes are present, adequate residual control may not be achieved with this tank mix.

- ² Includes triazine-resistant biotypes
- ³ Includes glyphosate-resistant biotypes

FACTORS AFFECTING SAFFOLA HERBICIDE PERFORMANCE

Residual pre-plant applications of **SAFFOLA Herbicide** 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 **SAFFOLA Herbicide**, 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 **SAFFOLA Herbicide** 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 over night.
- 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/territorial 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 **SAFFOLA Herbicide**.

	Rotational Crops
Plant Back Crops	The following crops can be planted anytime in the
In case of crop failure, the following crops can	following season. Conduct a field bioassay (a test strip
be planted in the same season ¹	grown to maturity) the year BEFORE growing
	any other crop.
	Barley (spring)
	Corn (field)
Soybeans Wheat (winter)²	Dry beans
	Soybeans
	Wheat (spring, winter) ²

¹ A second application of **SAFFOLA Herbicide** 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 **SAFFOLA Herbicide** 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 apply to soybeans within 100 days of harvest.
- 3. **DO NOT** graze or feed treated soybean forage, hay or straw to livestock.
- 4. ONLY ONE (1) application of **SAFFOLA Herbicide** may be made during the season. **DO NOT** over apply **SAFFOLA Herbicide**. Over application may result in injury particularly if the crop is under stress.
- 5. **SAFFOLA Herbicide** 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.
- 6. For applications in soybeans, **DO NOT** incorporate **SAFFOLA Herbicide** or apply after planting as injury may result
- 7. **DO NOT** apply **SAFFOLA Herbicide** when crop is under stress conditions because crop injury may result.
- 8. **DO NOT** let spray drift contaminate crops in adjacent fields.
- 9. This product may be tank mixed with (a fertilizer, a supplement, or with) registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact Sharda Cropchem Limited at 1-844-810-5720 for information before applying any tank mix that is not specifically recommended on this label.

<u>Field sprayer application:</u> 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.

PRODUCT SPECIFIC PRECAUTIONS

DO NOT apply by air.

SPRAY BUFFER ZONES

A spray buffer zone is NOT required for uses with hand-held application equipment permitted on this label.

The spray 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) and estuarine/marine habitats.

Method of application	-	Spray Buffer Zones (metres) Required for the Protection of:		
	Crop	Terrestrial Habitat: Aquatic H	Aquatic Habitats:	
Field sprayer	Soybean	4	1	

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.

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, **SAFFOLA Herbicide** is both a Group 2 and a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to **SAFFOLA Herbicide** and other 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 **SAFFOLA Herbicide** 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 Sharda Cropchem Limited at 1-844-810-5720.

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