Container

**GROUP 14 HERBICIDE** 

## **INSIGHT LIQUID SC HERBICIDE**

## **COMMERCIAL (AGRICULTURAL)**

#### **SUSPENSION**

with TERGEO® Active

A NONSELECTIVE BURNDOWN HERBICIDE FOR 1) PRE-PLANT AND PRE-EMERGENCE BURNDOWN USE IN FIELD CORN AND SPRING WHEAT, 2) PRE-PLANT BURNDOWN USE IN SOYBEAN, AND 3) POST-EMERGENCE BURNDOWN USE IN FALLOW AND NONCROP AREAS.

ACTIVE INGREDIENT: TIAFENACIL 339 g/L

Contains 1,2-benzisothiazolin-3-one at 0.019% as a preservative

# READ THE LABEL AND ATTACHED BROCHURE BEFORE USING KEEP OUT OF REACH OF CHILDREN

REGISTRATION NO: 34689 PEST CONTROL PRODUCTS ACT

Net Contents: 500 ml – 200L

Gowan Company, L.L.C. P.O. Box 5569 Yuma, AZ 85366-5569 1-800-960-4318

TERGEO is a registered trademark of Ishihara Sangyo Kaisha, Ltd.

## **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 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 INHALED:** Move the person to fresh air. If the 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 SWALLOWED:** Call a poison control centre or doctor immediately for treatment advice. Have the 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.

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

#### TOXICOLOGICAL INFORMATION

There is no specific antidote for this product. Treat symptomatically.

#### **PRECAUTIONS**

KEEP OUT OF REACH OF CHILDREN

Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash separately from other laundry before reuse.

Wear 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. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove personal protection equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Keep and wash PPE separately from other laundry.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift.

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours. For non-crop areas, **DO NOT** enter or allow worker entry into treated areas until sprays have dried.

**DO NOT** apply by air.

#### **SPRAY DRIFT MANAGEMENT**

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.

## **ENVIRONMENTAL PRECAUTIONS**

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

This product demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

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**

Store this product away from food or feed.

#### **DISPOSAL**

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 distributor or the provincial regulatory agency. Contact the distributor and the provincial regulatory agency in case of a spill, and for clean-up of spills.

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**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours. For non-crop areas, **DO NOT** enter or allow worker entry into treated areas until sprays have dried.

**DO NOT** apply by air.

#### SPRAY DRIFT MANAGEMENT

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.

## **ENVIRONMENTAL PRECAUTIONS**

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This product demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

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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## RESISTANCE MANAGEMENT

For resistance management, Insight Liquid SC Herbicide is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to Insight Liquid SC Herbicide and other 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:

- Where possible, rotate the use of Insight Liquid SC Herbicide or other 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 Gowan Company at 1-800-960-4318

# **DIRECTIONS FOR USE**

#### PRODUCT SPECIFIC PRECAUTIONS:

Read and understand the entire label before opening this product. If you have questions, call the distributer at 1-800-960-4318 or obtain technical advice from your provincial agricultural representative. Application of the specific product must meet and/or conform to the following:

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.

#### **GENERAL USE INFORMATION:**

Insight Liquid SC Herbicide is a nonselective, contact (burndown) herbicide used to control or suppress certain emerged annual grasses and broadleaf weeds that are less than 12.5 cm tall.

- Insight Liquid SC Herbicide must be applied with an adjuvant for optimum burndown activity (refer to adjuvant section for details).
- It is essential to obtain complete coverage of target weeds for weed control. Inadequate coverage of target weeds, improper application technique, and/or application to mature, large (taller than 12.5 cm), stressed, or mown weeds will usually result in unacceptable weed control.
- Burndown activity may be slowed or reduced under cloudy and/or foggy or cooler weather conditions, or when weeds are growing under drought or other stress conditions.

Insight Liquid SC Herbicide rapidly degrades following application and as a result, Insight Liquid SC Herbicide has no residual activity on weeds that have not yet emerged.

## **Mode of Action (MOA) Information:**

Insight Liquid SC Herbicide is classified as a Group 14 (WSSA/HRAC) herbicide and is rapidly absorbed by emerged, actively growing, and susceptible green plant tissue. Once Insight Liquid SC Herbicide is absorbed by green plant tissue, inhibition of protoporphyrinogen oxidase (PPO) results in rapid disintegration and drying of plant tissue. Chlorosis and necrotic symptoms usually develop within hours after application and death of susceptible weeds occurs within a few days.

#### **Crop Tolerance Information:**

Crops listed on this label are tolerant to Insight Liquid SC Herbicide when applied according to the labeled directions and under normal environmental conditions.

- Crop injury may occur under stressful growing conditions.
- Crop injury will occur if Insight Liquid SC Herbicide is applied post-emergence (over the top) to the crop.
- In fields where poor row closure (during planting) and/or soil cracking is common, applicators should be watchful for cases where the crop emerges within the open planting row or within soil cracks. If Insight Liquid SC Herbicide is applied when the crop has emerged within open planting rows or within soil cracks (between the soil walls), Insight Liquid SC Herbicide will likely contact and injure the crop.
- In directed post-emergence (perennial crop) uses, Insight Liquid SC Herbicide will cause crop injury if the spray solution drifts into the crop canopy.

## **Rotational Crop Information:**

Crops may be planted according to the following table that shows the required time interval after the last application of Insight Liquid SC Herbicide.

	Tiafenacil rate			
	Product ml/ha			
Crop	(g ai/ha)			
	74	148		
	(25.1)	(50.2)		
	Days after application			
Field corn	0	0		
Spring wheat	0	0		
Soybeans	14	14		
All other rotational crops	270	270		

#### PRODUCT CROP USE & APPLICATION INSTRUCTIONS:

Insight Liquid SC Herbicide is registered for 1) pre-plant and pre-emergence burndown use in field corn and spring wheat, 2) pre-plant burndown use in soybean, and 3) post-emergence burndown use in fallow and noncrop areas.

Insight Liquid SC Herbicide is not registered for aerial applications. DO NOT apply by air.

## **Weeds Controlled:**

Insight Liquid SC Herbicide applied at 74 to 148 ml product per hectare (25.1 to 50.2 g ai per hectare) + an adjuvant (see adjuvant section) will provide early season suppression (S) or control (C) of the following weed species listed in Tables 1 and 2:

Table 1. Broadleaf weeds controlled or suppressed with Insight Liquid SC Herbicide

Common Name	Scientific Name	Insight Liquid SC Herbicide (25.1 to 50.2 g ai/ha)
Buckwheat, wild	Polygonum convolvulus	С
Kochia	Bassia scoparia	C
Lamb's quarters, common	Chenopodium album	C
Pigweed, redroot	Amaranthus retroflexus	C
Prickly lettuce	Lactuca serriola	S
Thistle, Russian	Salsola tragus	С
Velvetleaf	Abutilon theophrasti	С
Waterhemp	Amaranthus tuberculatus	S
Volunteer canola	Brassica rapa	C

Table 2. Grasses controlled with Insight Liquid SC Herbicide

Common Name	Scientific Name	Insight Liquid SC Herbicide (25.1 to 50.2 g ai/ha)
Oat, wild	Avena fatua	С

Use a higher rate within the rate range for dense and/or mature weed infestations.

## Field Corn

The maximum single application rate is 148 ml product per hectare (50.2 g ai per hectare). Do not exceed 148 ml product per hectare per calendar year (50.2 g ai per hectare per calendar year).

Application Timing	Rate Range (ml product/ha)	Additional Information & Restrictions
Pre-plant Burndown	74 to 148	<ul> <li>Apply as a broadcast spray using conventional low-pressure ground spray equipment.</li> <li>Follow nozzle distributor's recommendations for spraying pressure and boom height; however, DO NOT exceed 60 cm height above target.</li> <li>Allow 2 weeks between treatments.</li> <li>Use higher rate for dense and/or mature weed infestations.</li> </ul>
Pre-emergence Burndown	74 to 148	<ul> <li>Apply as a broadcast spray using conventional low-pressure ground spray equipment.</li> <li>Follow nozzle distributor's recommendations for spraying pressure and boom height; however, DO NOT exceed 60 cm height above target.</li> <li>Allow 2 weeks between treatments.</li> <li>Use higher rate for dense and/or mature weed infestations.</li> </ul>

#### **Fallow**

The maximum single application rate is 148 ml product per hectare (50.2 g ai per hectare). Do not exceed 148 ml product per hectare per calendar year (50.2 g ai per hectare per calendar year).

Application Timing	Rate Range (ml product/ha)	Additional Information & Restrictions	
Post-emergence Burndown (Broadcast)	74 to 148	Apply as a broadcast spray using conventional low-pressure ground spray equipment.	

<ul> <li>Follow nozzle distributor's recommendations for spraying pressure and boom height; however, DO NOT exceed 60 cm height above target.</li> <li>Allow 2 weeks between treatments.</li> <li>Use higher rate for dense and/or</li> </ul>
mature weed infestations.

## Noncrop Areas

The maximum single application rate is 148 ml product per hectare (50.2 g ai per hectare). Do not exceed 148 ml product per hectare per calendar year (50.2 g ai per hectare per calendar year).

Application Timing	Rate Range (ml product/ha)	Additional Information & Restrictions
Post-emergence Burndown (Broadcast)	74 to 148	<ul> <li>Apply as a broadcast spray using conventional low-pressure ground spray equipment.</li> <li>Follow nozzle distributor's recommendations for spraying pressure and boom height; however, DO NOT exceed 60 cm height above target.</li> <li>Allow 2 weeks between treatments.</li> <li>Use higher rate for dense and/or mature weed infestations.</li> </ul>

#### Sovbean

The maximum single application rate is 148 ml product per hectare (50.2 g ai per hectare). Do not exceed 148 ml product per hectare per calendar year (50.2 g ai per hectare per calendar year).

Application Timing	Rate Range (ml product/ha)	Additional Information & Restrictions
Pre-plant Burndown	74 to 148	<ul> <li>Apply as a broadcast spray using conventional low-pressure ground spray equipment.</li> <li>Follow nozzle distributor's recommendations for spraying pressure and boom height; however, DO NOT exceed 60 cm height above target.</li> <li>Allow 2 weeks between treatments.</li> <li>Use higher rate for dense and/or mature weed infestations.</li> <li>DO NOT plant less than 14 days after application.</li> </ul>

## Wheat (spring)

The maximum single application rate is 148 ml product per hectare (50.2 g ai per hectare). Do not exceed 148 ml product per hectare per calendar year (50.2 g ai per hectare per calendar year).

Application Timing	Rate Range (ml product/ha)	Additional Information & Restrictions
Pre-plant Burndown	74 to 148	<ul> <li>Apply as a broadcast spray using conventional low-pressure ground spray equipment.</li> <li>Follow nozzle distributor's recommendations for spraying pressure and boom height; however, DO NOT exceed 60 cm height above target.</li> <li>Allow 2 weeks between treatments.</li> <li>Use higher rate for dense and/or mature weed infestations.</li> </ul>
Pre-emergence Burndown	74 to 148	<ul> <li>Apply as a broadcast spray using conventional low-pressure ground spray equipment.</li> <li>Follow nozzle distributor's recommendations for spraying pressure and boom height; however, DO NOT exceed 60 cm height above target.</li> <li>Allow 2 weeks between treatments.</li> <li>Use higher rate for dense and/or mature weed infestations.</li> </ul>

## **SPRAY CARRIER:**

Always use clean water (free of mud or clay) when applying Insight Liquid SC Herbicide.

#### **SPRAY VOLUME:**

The minimum spray volume for applications of Insight Liquid SC Herbicide is 100 litres of final spray solution per hectare. When targeting dense weed populations and/or larger weeds, use higher spray volumes.

#### **NOZZLE SELECTION:**

The use of flat-fan nozzles will result in the most effective application of Insight Liquid SC Herbicide. It is recommended that the applicator selects a nozzle that will produce a medium to coarse droplet size.

## **APPLICATION TIMING AND RATES:**

For Insight Liquid SC Herbicide application timing and rates, see instructions listed for each use.

#### **ADJUVANTS:**

Always use a methylated seed oil (MSO) at 1% v/v (1 litre per 100 litre spray volume) of the final spray volume when applying Insight Liquid SC Herbicide or reduced performance will occur.

#### **SPRAYER MIXING:**

*Mixing and Loading Instructions*. Prepare no more spray mixture than is needed for the immediate application and avoid overnight storage of Insight Liquid SC Herbicide in spray mixtures.

- 1. Ensure the spray system is free of residues from previous applications.
- 2. Fill the tank 1/2 full of clean water.
- 3. Turn on the tank agitation system.
- 4. Add the required amount of Insight Liquid SC Herbicide and continue agitation until the Insight Liquid SC Herbicide is completely dispersed.
- 5. As the tank is filling, add the required spray adjuvant.

Agitation should be maintained during mixing and application.

#### **SPRAYER CALIBRATION:**

Equipment should be calibrated regularly according to manufacturer's specifications.

<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), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), and estuarine/marine habitats.

Method of application Crop		Spray Buf	fer Zones (metres	es) Required for the Protection of:	
	Crop	Freshwater Habitat of Depths:		Estuarine/Marine Habitat of Depths:	Terrestrial
		Less than 1 m	Greater than 1 m	Less than 1 m	Habitat:
Field sprayer	Field corn, soybean, spring wheat, summerfallow, non-crop areas	1	1	1	4

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.

## **SPRAY TANK CLEANING:**

Clean application equipment thoroughly by using a strong detergent or commercial spray cleaner according to the manufacture's direction, followed by triple rinsing the equipment before and after applying this product.