GROUP 4 HERBICIDE

# Ingenious Herbicide

For selective post-emergence control of green foxtail, cleavers, volunteer flax and barnyard grass and suppression of annual and perennial sow-thistle in spring and durum wheat, spring barley, canary seed, canola, **Clearfield** canola quality *Brassica juncea*, and tame mustard (brown and oriental).

FOR SALE FOR USE IN THE PRAIRIE PROVINCES AND PEACE RIVER REGION OF BRITISH COLUMBIA ONLY

**COMMERCIAL (AGRICULTURAL)** 

ACTIVE INGREDIENT: Quinclorac ....... 75% DF

**REGISTRATION NO. 32213 PEST CONTROL PRODUCTS ACT** 

IN CASE OF EMERGENCY ENDANGERING LIFE OR PROPERTY INVOLVING THIS PRODUCT, CALL COLLECT DAY OR NIGHT 1-613-966-6666

CAUTION - SKIN IRRITANT POTENTIAL SKIN SENSITIZER

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

**KEEP OUT OF REACH OF CHILDREN** 

Advantage Crop Protection Inc. 601-402 21st Street East Saskatoon, Saskatchewan Canada S7K 0C3

1-888-931-2530

NET CONTENTS: 1.0 kg - 10 kg

## **GENERAL INFORMATION**

**INGENIOUS** Herbicide is a dry flowable herbicide for selective post-emergence control of green foxtail (including Group 1 and Group 3 resistant biotypes), volunteer flax, cleavers, and barnyard grass in hard red spring, Canadian prairie spring, durum, Canada Western extra strong wheats, spring barley and canary seed, canola (*Brassica napus* – all varieties, including conventional, **Clearfield®**, LibertyLink® and Roundup Ready®), **Clearfield** canola quality *Brassica juncea* (e.g. canola quality *Brassica juncea* varieties with the **Clearfield** trait) and brown and oriental tame mustard.

**INGENIOUS** Herbicide is a herbicide with mainly systemic action. Uptake into the plant occurs through both the foliage and root system. Thorough coverage of foliage is important for consistent weed control. Failure to penetrate crop or weed leaf canopies with the spray will result in inconsistent control of weeds growing underneath.

Visual symptoms of weed control of **INGENIOUS Herbicide** may take up to two weeks following application to develop. These symptoms include initial twisting to stunting, reddening and chlorosis about 14 days followed by necrosis and death about 21 days after application. Even though **INGENIOUS Herbicide** symptoms may take some time to develop, competition from the weeds treated with **INGENIOUS Herbicide** is eliminated soon after application.

## **DIRECTIONS FOR USE**

# Application Rate and Timing for Wheat, Spring Barley and Canary Seed

DO NOT APPLY BY AIR.

Apply **INGENIOUS Herbicide** at 135-165 g/ha when weeds are small and actively growing. **INGENIOUS Herbicide** will control the weeds at the timing detailed in **Table 1**. **INGENIOUS Herbicide** can be applied to wheat, spring barley and canary seed at the maximum application rates and timing detailed in **Table 1**.

Use the 135 g/ha rate ONLY for control of volunteer flax, barnyard grass, cleavers, lighter infestations of green foxtail and suppression of annual and perennial sow-thistle. Use the higher rate of 165 g/ha for control of heavier infestations of green foxtail. (Do not use the 165 g/ha rate on barley.) **Use only the 135 g/ha rate when applying Ingenious Herbicide to spring barley.** 

Improved cleavers control in canola may be accomplished using a rate of 62 g/ha when tank mixed with Liberty 150 SN Herbicide at a rate of 3.33 L/ha on Liberty Link Canola, or with glyphosate products (360 g/L acid equivalent (ae) isopropylamine salt formulations or 540 g ae/L potassium salt formulations) at a rate of 667 g ae/ha on Roundup Ready Canola. All glyphosate products must be registered for post-emergent use on glyphosate tolerant canola varieties. Application should be made from the 2 to 6 leaf stage of the canola crop when cleavers are between the cotyledon to 3 whorls stage.

DO NOT apply **INGENIOUS Herbicide** to any field more often than every second year. This practise must be respected in order to avoid potential injury to future rotational crops, to minimize the potential for carryover and accumulation of soil residues, and to reduce the selection pressure which could contribute to the development of resistant biotypes.

Early treatment of weeds with **INGENIOUS Herbicide** is important to maximize crop yield potential through elimination of early weed competition. Some initial crop injury may be observed after application, but this is usually outgrown and should not affect crop yield.

Crop	Use Rate (g/ha)	Preharvest Interval (days)
Canola <sup>1</sup> , <b>Clearfield</b> canola quality <i>Brassica juncea</i> , and tame mustard (brown and oriental)	135	60
Wheat (spring and Durum) and canary seed	135-165	77
Spring barley	135	80

<sup>&</sup>lt;sup>1</sup>Brassica napus – all varieties, including conventional, **Clearfield**, LibertyLink and Roundup Ready.

**TABLE 1: WEED AND CROP APPLICATION TIMING TABLE** 

WEED	TRUE LEAF RANGE
Green foxtail	1 - 5 leaf
	(max 2 tillers)
Volunteer flax	1 - 8 cm.
Cleavers	1 - 3 whorls
Barnyard grass	1 - 5 leaf
Annual sow-thistle*	2 – 6 leaf
Perennial sow-thistle*	2 – 6 leaf
CROP	
Spring barley**	1 – 4 leaf
	(prior to tillering)
Wheat (spring and durum)	1 - 5 leaf
Canola <sup>1</sup>	2 - 6 leaf
Canary seed***	3 – 5 leaf
Clearfield canola quality Brassica juncea	2 - 6 leaf
Brown and oriental tame mustard	2 - 6 leaf

<sup>\*</sup>Suppression only.

# **SPRAYING INSTRUCTIONS**

# **Ground Application**

Use sprayers equipped with standard flat fan pesticide nozzles with a spray volume of 100 L/ha at a constant pressure of 275-425 kPa. Tilt spray nozzles 45 degrees forward to ensure better coverage. The use of 50 mesh strainers and screens is recommended.

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

<sup>\*\*</sup>Maximum rate for barley is 135 g/ha. To avoid crop injury apply **INGENIOUS Herbicide** before spring barley tillers.

<sup>\*\*\*</sup>Not to be used for human consumption or fed to livestock.

<sup>&</sup>lt;sup>1</sup>Brassica napus – all varieties, including conventional, Clearfield, LibertyLink and Roundup Ready.

#### **ADDITIVES**

Always use **MERGE** adjuvant at 1.0% v/v for optimum performance of **INGENIOUS Herbicide**.

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

# TANK MIX COMBINATIONS (BARLEY, WHEAT AND CANARY SEED APPLICATIONS ONLY):

For the appropriate rate of **INGENIOUS Herbicide**, refer to the Application Rate and Timing section of the label.

## **Broadleaf Weed Control**

Although **INGENIOUS Herbicide** provides control of several broadleaf weeds, a tank mix with a broadleaf compound is required to give broad spectrum broadleaf weed control in wheat.

For additional control of broadleaf weeds in barley and wheat, **INGENIOUS Herbicide** can be tank mixed with any of the broadleaf herbicides listed in **Table 2**. When tank mixing **INGENIOUS Herbicide** with these broadleaf herbicides, a slight reduction in control of green foxtail may be observed. The level of green foxtail control may be improved by using the 165 g/ha rate of **INGENIOUS Herbicide** in the tank mixture for wheat only.

Refer to **Table 2** for appropriate use rates and timing of crop applications. Always refer to the labels of all tank mix partners and observe the most restrictive application directions, restrictions, precautions and personal protective equipment of all tank mix partners.

## Wild Oat Control

For control of wild oats when populations are between 1-200 plants per square metre and certain broadleaf weeds, **INGENIOUS Herbicide** can be tank mixed with **AVENGE 200-C** herbicide at the rate of 3.5 L/ha and one of the broadleaf herbicides as listed in **Table 2**. USE ONLY ON SPRING WHEAT VARIETIES LISTED ON THE **AVENGE 200-C** HERBICIDE LABEL.

AVENGE 200-C herbicide can cause some crop injury. Refer to the Table 2 for appropriate use rates and timing of crop application. Refer to the labels of all tank mix partners (e.g., AVENGE 200-C herbicide and the broadleaf herbicide) and observe the most restrictive application directions, restrictions, precautions and personal protective equipment of all tank mix partners.

TABLE 2: TANK MIX OPTIONS FOR INGENIOUS HERBICIDE ON BARLEY, WHEAT, AND CANARY SEED

INGENIOUS Rate (g/ha)	Tank Mix Partner	Rate	Crop Stage	Weeds Controlled
135	MCPA Amine (assume 500	1.1 L/ha	3-4 leaf	INGENIOUS Herbicide – see Table 1.
	series)			Broadleaf weeds listed on MCPA  Amine label.
	MCPA Ester (assume 500	1.1 L/ha	3-4 leaf	INGENIOUS Herbicide – see Table 1.
	series)			Broadleaf weeds listed on MCPA Ester label
	Buctril M	1.0 L/ha	2-4 leaf	INGENIOUS Herbicide – see Table 1. Broadleaf weeds listed on Buctril M label
	Rate (g/ha)	135  MCPA Amine (assume 500 series)  MCPA Ester (assume 500 series)	135  MCPA Amine (assume 500 series)  MCPA Ester (assume 500 series)  1.1 L/ha (assume 500 series)	Rate (g/ha)  MCPA Amine (assume 500 series)  MCPA Ester (assume 500 series)  1.1 L/ha 3-4 leaf (assume 500 series)

	Refine Extra <sup>1</sup>	20 g/ha	2-4 leaf	INGENIOUS Herbicide – see Table 1. Broadleaf weeds listed on Refine Extra label
Wheat 135-165 (spring and durum)	Buctril M	1.0 L/ha	2-5 leaf	INGENIOUS Herbicide - see Table 1. Broadleaf weeds listed on Buctril M label.
	<b>2,4-D Amine</b> (assume 500 series)	0.840-1.1 L/ha	3-5 leaf	INGENIOUS Herbicide - see Table 1. Broadleaf weeds listed on 2,4-D Amine label.
	<b>2,4-D Ester</b> (assume 500 series)	0.840-1.1 L/ha	4-5 leaf	INGENIOUS Herbicide - see Table 1. Broadleaf weeds listed on 2,4-D
	MCPA Amine (assume 500 series)	0.840-1.1 L/ha	3-5 leaf	Ester label. INGENIOUS Herbicide - see Table 1. Broadleaf weeds listed on MCPA
	MCPA Ester (assume 500 series)	0.840-1.1 L/ha	3-5 leaf	Amine label.  INGENIOUS Herbicide - see  Table 1. Broadleaf weeds listed on MCPA Ester label.
	Refine Extra <sup>1</sup>	20 g/ha	2-5 leaf	INGENIOUS Herbicide - see Table 1. Broadleaf weeds listed on <b>Refine Extra</b> label.
	Express Pack <sup>1</sup> (Express + 2,4- D)	10 g/ha + 0.625 L/ha	3-5 leaf	INGENIOUS Herbicide - see Table 1. Broadleaf weeds listed on Express Pack label.
Wheat 135-165 (spring only)	Avenge 200-C	3.5 L/ha	1-5 leaf	INGENIOUS Herbicide - see Table 1. Wild oats as listed on Avenge 200-C label.
	Avenge 200-C + Buctril M	3.5 L/ha + 1.0 L/ha	2-5 leaf	INGENIOUS Herbicide - see Table 1. Broadleaf weeds listed on Buctril M label. Wild oats as listed on Avenge 200-C label.
	Avenge 200-C + 2,4-D Ester (assume 500 series)	3.5 L/ha + 0.840-1.1 L/ha	4-5 leaf	INGENIOUS Herbicide - see Table 1. Broadleaf weeds listed on 2,4-D Ester label. Wild oats as listed on Avenge 200-C label.
	Avenge 200-C + MCPA Ester (assume 500 series)	3.5 L/ha + 0.840-1.1 L/ha	3-5 leaf	INGENIOUS Herbicide - see Table 1. Broadleaf weeds listed on MCPA Ester label. Wild oats as listed on Avenge 200-C label.
	Avenge 200-C + Refine Extra <sup>1</sup>	3.5 L/ha + 20 g/ha	2-5 leaf	INGENIOUS Herbicide -see Table 1. Broadleaf weeds listed on Refine Extra label. Wild oats as listed on Avenge 200-C label.
Canary 135 seed <sup>2</sup>	Buctril M	1.0 L/ha	3-5 leaf	INGENIOUS Herbicide - see Table 1.
				Broadleaf weeds listed on <b>Buctril M</b> label.

<sup>&</sup>lt;sup>1</sup> Addition of surfactants other than Merge adjuvant is not required

<sup>2</sup>Avoid over application.

Do not delay spraying broadleaf weeds if grassy weeds are not in the correct stage for treatment. If green foxtail, wild oats and broadleaf weeds are not in the correct stages for treatment, apply separate applications of each herbicide timed to control the required spectrum of weeds. Use **MERGE** adjuvant only with all tank mixtures.

# **RECROPPING**

Due to the residual activity of INGENIOUS Herbicide in the soil, land treated with INGENIOUS

**Herbicide** cannot be rotated to crops other than specified in **Table 3**. To avoid injury to rotational crops, the minimum recropping intervals in **Table 3** must be followed.

**TABLE 3: MINIMUM RECROPPING INTERVALS** 

CROP	MINIMUM RECROPPING INTERVAL (Months)	NOTES
Wheat*	0	These crops can be re-planted in the
(spring, durum)		same season as INGENIOUS
Spring barley*	0	Herbicide applications.
Canola	0	
Field peas	10	These crops and the crops listed above
Sunflowers	10	can be planted the year following application of <b>INGENIOUS Herbicide</b> .
Oats	12	These crops and the crops listed above can be planted the year following application of INGENIOUS Herbicide.
Flax	10	These crops and the crops listed above
Lentils	10	can be planted two years following application of <b>INGENIOUS Herbicide</b> .

<sup>\*</sup>In the event of crop failure, only canola, spring or durum wheat or spring barley may be reseeded in fields treated with **INGENIOUS Herbicide**.

INGENIOUS Herbicide should not be used on land where potatoes or vegetables are part of the rotation.

The company recommends that a field bioassay (a test strip grown to maturity) be conducted the year before growing any crops other than those listed in **Table 3**.

On lighter soils with low organic matter or under dry conditions, some crop injury may occur particularly in flax and lentils but will not reduce yield. Under these conditions, the minimum recropping interval for flax and lentils should be extended by 12 months.

Refer to the broadleaf or AVENGE 200-C herbicide label for specific additional recropping restrictions.

# **RESTRICTIONS AND LIMITATIONS**

- Do not apply INGENIOUS Herbicide when weather conditions may cause spray drift from treated areas to adjacent crops. Certain crops such as alfalfa, clover species, fababeans, flax, lentils, ornamentals, potatoes and vegetables will be injured by spray drift of INGENIOUS Herbicide.
- 2. Do not apply INGENIOUS Herbicide to wheat, spring barley and canary seed under seeded to forages.
- 3. Do not apply **INGENIOUS Herbicide** to wheat, spring barley, canary seed, canola, **Clearfield** canola quality *Brassica juncea* or tame mustard that has been subjected to stress from conditions such as frost, hail damage, flooding, drought, extended cold period, etc.
- 4. Rainfall within 6 hours after application may reduce effectiveness of spray.

- 5. When **INGENIOUS Herbicide** is applied beyond the recommended growth stages, limited crop injury and/or unsatisfactory weed control may result.
- 6. Cool weather conditions or drought will delay **herbicide** activity and if prolonged, may result in poor weed control.
- 7. Do not use **INGENIOUS Herbicide** with additives, pesticides or fertilizers not specifically recommended on this label.
- 8. Allow 4 days between application of **INGENIOUS Herbicide** and any other chemical not recommended as a tank mix combination on this label.
- 9. **INGENIOUS Herbicide** must not be applied within 77 days of harvest of canary seed and wheat, within 60 days of harvest of canola and within 80 days of harvest of spring barley.
- Spring barley treated with INGENIOUS Herbicide is NOT TO BE USED FOR HUMAN CONSUMPTION.
- 11. Canary seed treated with **INGENIOUS Herbicide** is NOT TO BE USED FOR HUMAN CONSUMPTION OR FED TO LIVESTOCK.
- 12. Apply using ground equipment only. DO NOT APPLY BY AIR.
- 13. Overspray or drift into important wildlife habitats such as shelterbelts, wetlands, woodlots, vegetated ditch, ponds and lake banks and other cover on the edges of fields should be avoided. A 10-metre buffer zone should be observed adjacent to aquatic habitats such as streams, ponds, rivers and lakes and to areas that drain into these habitats. When a tank mixture is used, consult the label of the tank mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.
- 14. Do not graze the treated crops or cut for hav within 77 days of application.
- 15. Grain and meal from treated canola can be fed to livestock. DO NOT graze or feed other portions of the treated canola to livestock.
- 16. 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.

# Buffer Zones for the Protection of Terrestrial Habitats from Spray Drift of Quinclorac

Method of application	Crop	Buffer Zones (metres) Required for the Protection of Terrestrial Habitats
Field Sprayer	Durum and spring wheat, canary seed	4
	Spring barley	3
	Canola - Brassica napus (conventional, Clearfield, LibertyLink and Roundup Ready varieties),	
	Canola - Brassica	

1	
junceae (conventional,	
Clearfield, LibertyLink	
and Roundup Ready	
varieties) and Tame	
mustard (brown and	
oriental)	

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) 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.

# **MIXING**

- 1. Thoroughly clean the sprayer prior to use. For appropriate cleaning instructions, refer to the label of the product sprayed previous to application of **INGENIOUS Herbicide**.
- 2. Fill the clean spray tank half full with clean water. Start agitation or by-pass system. Agitation should be running during the entire mixing procedure.
- 3. Add the correct amount of **INGENIOUS Herbicide** and agitate 2 to 3 minutes.
- 4. Add the correct amount of broadleaf herbicide, followed by **AVENGE 200-C** herbicide, if required. When mixing **INGENIOUS Herbicide** with **EXPRESS PACK**, **EXPRESS** herbicide must be completely in suspension in the spray tank prior to adding **2,4-D** herbicide.
  - NOTE: On repeat tank loads of either EXPRESS PACK or REFINE EXTRA herbicide, prepare an EXPRESS/water or REFINE/water slurry in a separate container with clean water before adding to the spray tank.
- 5. Add the correct amount of **MERGE** adjuvant and agitate 2 to 3 minutes.
- 6. Add remainder of water to the spray tank and maintain sufficient agitation during mixing and spraying to ensure a uniform spray mixture.
- 7. For sprayer clean-up, refer to the sprayer clean-up section.
- 8. Consult the broadleaf or **AVENGE 200-C** herbicide label for additional application instructions, use precautions and recropping information.

# **SPRAYER CLEAN-UP**

Certain crops such as alfalfa, clover species, fababeans, flax, lentils, ornamentals, potatoes, tomatoes and vegetables are particularly sensitive to **INGENIOUS Herbicide**. To avoid injury to subsequent crops other than wheat, the sprayer should be thoroughly cleaned immediately after use and prior to spraying other crops by performing the following steps:

- Following spray application, drain any remaining spray solution, then flush the tank, boom and hoses with clean water until any visible residues are removed. (Repeat step 1, if necessary.) DO NOT CLEAN SPRAYER NEAR DESIRABLE VEGETATION OR NEAR WELL OR WATER SOURCE.
- 2. Completely fill spray tank with clean water while adding 1 litre of household ammonia (containing 3% ammonia) per 100 litres of water or a commercially licensed tank cleaner such as **FINNISH**®. Reduce the amount of ammonia added proportionally if higher concentrations (%) of ammonia are used. Flush the solution through the boom and nozzles and then add

more water to completely refill the tank. Agitate the solution for at least 15 minutes and then flush the boom and nozzles until the spray tank is empty.

- 3. Remove the nozzles and screens and clean separately in a bucket containing a cleaning agent and water.
- 4. Repeat step 2.
- 5. Thoroughly rinse the tank with clean water and flush the water through the boom.

#### RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, **INGENIOUS Herbicide** is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to **INGENIOUS Herbicide** and other Group 4 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 INGENIOUS herbicide or other Group 4 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 partners.
- 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 GNG at 1-866-727-5226.

## **PRECAUTIONS**

1 KEEP OUT OF REACH OF CHILDREN.

- 2 May irritate the skin. Avoid contact with the skin.
- 3 Potential skin sensitizer.
- 4 Wash thoroughly after handling and before eating, drinking or smoking.
- Wear protective equipment and clothing, including goggles or face shield, gloves (rubber, PVC, neoprene or nitrile), hat, long-sleeved shirt, trousers and rubber boots during mixing, loading, application, clean-up and repair activities.
- If clothing becomes contaminated, remove and wash separately from household laundry before reuse.
- 7 Clean spray equipment thoroughly after use. Refer to sprayer clean-up section.
- 8 DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.
- 9 Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.
- 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.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at www.croplife.ca.

# **ENVIRONMENTAL HAZARDS**

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

# **LEACHING**

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

# **RUN-OFF**

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.

## **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.

## **STORAGE**

- 1 Store in original, tightly-closed container.
- 2 Do not ship or store near food, feed, seed or fertilizers.
- 3 Store in cool, dry, locked, well-ventilated area without floor drain.
- 4 Herbicides should be shipped or stored separately from other pesticides to avoid crosscontamination.
- Freezing will not harm **INGENIOUS Herbicide**. Should product freeze, warm to room temperature prior to use.

## **DISPOSAL**

- 1 Follow provincial instruction for any required cleaning of the container prior to its disposal.
- 2 Make the empty container unsuitable for further use.
- 3 Dispose of the container in accordance with provincial requirements.
- For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

# **NOTICE TO USER**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

MERGE® is a registered trademark of BASF Canada Inc.

®All other products listed are registered trademarks of their respective companies.

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- Wear protective equipment and clothing, including goggles or face shield, gloves (rubber, PVC, neoprene or nitrile), hat, long-sleeved shirt, trousers and rubber boots during mixing, loading, application, clean-up and repair activities.
- If clothing becomes contaminated, remove and wash separately from household laundry before reuse.
- 7 Clean spray equipment thoroughly after use. Refer to sprayer clean-up section.
- 8 DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.
- 9 Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.
- 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.

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

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## **ENVIRONMENTAL HAZARDS**

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

# **LEACHING**

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

# **RUN-OFF**

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.

# **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.

## **STORAGE**

- 1 Store in original, tightly-closed container.
- 2 Do not ship or store near food, feed, seed or fertilizers.
- 3 Store in cool, dry, locked, well-ventilated area without floor drain.
- 4 Herbicides should be shipped or stored separately from other pesticides to avoid crosscontamination.
- Freezing will not harm **INGENIOUS Herbicide**. Should product freeze, warm to room temperature prior to use.

## **DISPOSAL**

- 1 Follow provincial instruction for any required cleaning of the container prior to its disposal.
- 2 Make the empty container unsuitable for further use.
- 3 Dispose of the container in accordance with provincial requirements.
- 4 For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

## **NOTICE TO USER**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.