

Container Label

GROUP	4	5	HERBICIDE
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**MARKSMAN® HERBICIDE**

**SUSPENSION**

**COMMERCIAL (AGRICULTURAL)**

DO NOT USE IN THE PROVINCE OF BRITISH COLUMBIA

**ACTIVE INGREDIENT:** Dicamba, present as potassium salt..... 132 g a.e./L  
Atrazine (plus related active triazines)..... 261 g/L

**WARNING: Contains the allergen sulfites**

**REGISTRATION NO.** 19349

**PEST CONTROL PRODUCTS ACT**



**CAUTION**

**POISON**

**IN CASE OF EMERGENCY ENDANGERING LIFE OR PROPERTY  
INVOLVING THIS PRODUCT, CALL DAY OR NIGHT  
1-800-454-2673**

**NET CONTENTS:** 10 L - 23 L; 24 L – 1000 L; Bulk

**READ THE LABEL AND BOOKLET BEFORE USING**

**SHAKE WELL BEFORE USING**

**KEEP OUT OF REACH OF CHILDREN**

BASF Canada Inc.  
100 Milverton Drive, 5th Floor  
Mississauga, Ontario  
L5R 4H1  
1-877-371-2273

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## PRECAUTIONS

1. **KEEP OUT OF REACH OF CHILDREN.**
2. Avoid contact with skin, eyes, and clothing.
3. Harmful if swallowed or absorbed through the skin.
4. Causes skin irritation.
5. During application, wear chemical-resistant gloves and coveralls over a long-sleeved shirt and long pants.
6. During mixing and loading, wear a face shield in addition to chemical-resistant gloves, and coveralls over a long-sleeved shirt and long pants.
7. **DO NOT** enter treated fields until 12 hours after application.

## GRAZING AND HARVEST RESTRICTIONS

**DO NOT** graze or cut for fodder before crop maturity (ear emergence). **DO NOT** harvest within 60 days of application on field corn. Withdraw meat animals from treated fields at least 3 days before slaughter.

## FIRST AID

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

**If swallowed:** Call a poison control centre or doctor immediately for treatment advice. 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.

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

## **TOXICOLOGICAL INFORMATION**

Dicamba may cause mild irritation to the eyes, and irritation to the skin and mucous membranes. Symptoms of overexposure to dicamba may include dizziness, muscle weakness, loss of appetite, weight loss, vomiting, decreased heart rate, shortness of breath, excitement, tenseness, depression, incontinence, cyanosis, muscle spasms, exhaustion and loss of voice. Treat symptomatically.

## **ENVIRONMENTAL HAZARDS**

Toxic to non-target terrestrial plants and aquatic organisms. Observe the buffer zones and precautionary measures specified under **SPRAY DRIFT MANAGEMENT FOR GROUND APPLICATIONS**.

Atrazine is persistent and will carry over. It is recommended that any products containing atrazine not be used in areas treated with this product during the previous season.

## **SURFACE RUNOFF**

To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to, heavy rainfall, moderate to steep slope, bare soil and poorly draining soil (e.g. soils that are compacted, fine textured or low in organic matter such as clay).

Avoid applying this product when heavy rain is forecast.

Potential for contamination of aquatic areas as a result of runoff may be reduced by including an untreated vegetative strip (buffer zone) between the treated area and the edge of the water body.

## **LEACHING**

The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g., sand, loamy sand and sandy loam soils) and/or the depth to the water table is shallow.

**DO NOT APPLY BY AIR.**

## **DISPOSAL**

### **Recyclable Containers [10 L – 23 L]**

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 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.

### **Returnable-Refillable Containers [24 L – 1000 L]**

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.

### **Unused, Unwanted Product**

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.

## **STORAGE**

1. Store **Marksman Herbicide** in its original container only, away from other pesticides, fertilizer, food or feed.
2. Keep the container closed to prevent spills and contamination.
3. If product is frozen, thaw in a warm room, allowing the product to reach room temperature, then roll or shake the container.

## **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.

Booklet

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**Marksman Herbicide** is recommended for season-long control of broadleaf weeds in field corn grown in conventional, reduced, and no-tillage systems.

**Marksman Herbicide** is particularly effective in controlling velvetleaf and providing extended residual control of other late germinating, deep-rooted annuals. Annuals do not have to be emerged at time of treatment; however, perennials must be emerged.

## **PRECAUTIONS**

1. **KEEP OUT OF REACH OF CHILDREN.**
2. Avoid contact with skin, eyes, and clothing.
3. Harmful if swallowed or absorbed through the skin.
4. Causes skin irritation.
5. During application, wear chemical-resistant gloves, and coveralls over a long-sleeved shirt and long pants.
6. During mixing and loading, wear a face shield in addition to chemical-resistant gloves, and coveralls over a long-sleeved shirt and long pants.
7. **DO NOT** enter treated fields until 12 hours after application.

## **GRAZING AND HARVEST RESTRICTIONS**

**DO NOT** graze or cut for fodder before crop maturity (ear emergence). **DO NOT** harvest within 60 days of application on field corn. Withdraw meat animals from treated fields at least 3 days before slaughter.

## **FIRST AID**

**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.

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

## TOXICOLOGICAL INFORMATION

Dicamba may cause mild irritation to the eyes, and irritation to the skin and mucous membranes. Symptoms of overexposure to dicamba may include dizziness, muscle weakness, loss of appetite, weight loss, vomiting, decreased heart rate, shortness of breath, excitement, tenseness, depression, incontinence, cyanosis, muscle spasms, exhaustion and loss of voice. Treat symptomatically.

## GENERAL PRECAUTIONS

1. **DO NOT APPLY BY AIR.**
2. **Marksman Herbicide** should not be applied on or near desirable trees or plants.
3. DO NOT overspray non-target terrestrial or aquatic habitats.
4. DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), or to estuarine/marine habitats.
5. Apply **Marksman Herbicide** when air temperature is between 10<sup>o</sup> and 25<sup>o</sup>C. Do not apply when there is a risk of severe drop in night temperature.
6. DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes. Thoroughly clean application equipment after use.
7. DO NOT treat areas where soil penetration or surface washing may bring **Marksman Herbicide** into contact with roots of desirable plants.
8. Caution is advised when applying **Marksman Herbicide** to fields previously treated with atrazine, as the risk of residue carryover to rotational crops is increased. In such cases, follow cropping restrictions outlined on the atrazine label.
9. If **Marksman Herbicide** is tank-mixed with other products, consult that product's label for additional precautions, restrictions, application rates, timings and additional weeds controlled.
10. Mixing and loading is not permitted within 30 m from aquatic habitats.

## ENVIRONMENTAL HAZARDS

Toxic to non-target terrestrial plants and aquatic organisms. Observe the buffer zones and precautionary measures specified under **SPRAY DRIFT MANAGEMENT FOR GROUND APPLICATIONS**.

Atrazine is persistent and will carry over. It is recommended that any products containing atrazine not be used in areas treated with this product during the previous season.

## **SPRAY DRIFT PRECAUTIONS**

**Marksman Herbicide** may cause injury to desirable trees and plants, particularly soybeans, flowers, fruit trees, grapes, ornamentals, peas, potatoes, tomatoes, tobacco, and other broadleaf plants, especially in their developmental and growing stage. Follow these precautions:

1. Avoid spraying when winds are gusty or in excess of 8 km/h and moving towards sensitive crops. Leave an adequate buffer zone between treatment areas and sensitive plants.
2. Use coarse sprays since they are less likely to drift than fine sprays. Select nozzles which produce only minimal amounts of fine spray particles. Keep spray pressure below 150 kPa, and spray volume above 200 L/ha, unless otherwise required by the nozzle manufacturer.
3. Do not spray when the temperature is expected to exceed 30°C.
4. Avoid spraying under conditions of high humidity or fog.

## **SPRAY DRIFT MANAGEMENT FOR GROUND APPLICATIONS**

### **General Information**

Use good pesticide practices and apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and parks is minimal. Take into consideration wind speed, wind direction, temperature, application equipment and sprayer settings used for application.

For the protection of non-target habitats, over-spray or drift to any body of water or other environmentally sensitive habitat must be avoided. The interaction of equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

### **Field Sprayer Application**

DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification. Boom height must be 60 cm or less above the crop or ground.

### **Aerial Application**

DO NOT apply by air.

### **Buffer Zones**

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, pastures, rangelands, riparian areas and shrublands) or sensitive aquatic habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, wetlands) and estuarine/marine habitats.

When a tank mixture is used, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.



Application Method	Buffer Zone for Protection of:	
	Terrestrial Habitats (m)	Aquatic Habitats (m)
Field sprayer <sup>1</sup>	10	10

<sup>1</sup> For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy or ground, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy or ground, the labelled buffer zone can be reduced by 30%.

## SURFACE RUNOFF

To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to, heavy rainfall, moderate to steep slope, bare soil and poorly draining soil (e.g. soils that are compacted, fine textured or low in organic matter such as clay).

Avoid applying this product when heavy rain is forecast.

Potential for contamination of aquatic areas as a result of runoff may be reduced by including an untreated vegetative strip (buffer zone) between the treated area and the edge of the water body.

## LEACHING

The use of this chemical may result in contamination of groundwater, particularly in areas where soils are permeable (e.g. sand, loamy sand and sandy loam soils) and/or the depth to the water table is shallow.

## TREATMENT NOTES

1. **Marksman Herbicide** may be applied to ground previously treated with a grass herbicide and broadleaf herbicide.
2. Apply **Marksman Herbicide** in 220 to 350 litres of water per hectare at a pressure of 150 to 275 kPa.
3. Keep spray mixture in suspension at all times. If spray mixture is allowed to settle, thoroughly agitate the mixture before spraying.
4. Do not apply to sweet corn.
5. Unless otherwise specified, do not use additives such as oils, wetting and sticking agents, etc.
6. Corn height refers to the crop as it stands, not leaf-extended.

## SPRAYING

Protect sprayer operators from drift or mist. Additional information on spray drift management for GROUND APPLICATION is provided in the section “SPRAY DRIFT MANAGEMENT FOR GROUND APPLICATIONS”. When low volumes of spray are applied, complete coverage and thorough application are essential for the most effective results. Schedule applications in accordance with local conditions. Consult your local agricultural authorities for specific use information.

## WEEDS CONTROLLED (in alphabetical order)

atriplex, spreading <sup>1</sup>	lady's-thumb	ragweed, common <sup>3</sup>
buckwheat, tartary	lamb's-quarters <sup>3</sup>	ragweed, false
buckwheat, wild	mustard, hare's-ear	ragweed, giant
cleavers	mustard, Indian	sow-thistle perennial <sup>4</sup>
cocklebur, common <sup>2</sup>	mustard, tumble	thistle, Canada <sup>4</sup>
corn spurry	mustard, wild	Velvetleaf
cow cockle	mustard, wormseed	volunteer adzuki beans <sup>5</sup>
field bindweed <sup>4</sup>	pigweed, redroot <sup>3</sup>	waterhemp, common <sup>6</sup>
green smartweed	pigweed, Russian	wormwood, biennial <sup>7</sup>

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<sup>1</sup> Pre-emergence only.

<sup>2</sup> Post-emergence only. Apply at the cotyledon to 6-leaf stage of common cocklebur.

<sup>3</sup> Including triazine-resistant species.

<sup>4</sup> Apply **Marksman Herbicide** annually for three years at the flowering stage of bindweed and the budding stage of thistles.

<sup>5</sup> For post-emergent applications, apply at the unifoliate to fourth trifoliate stage of volunteer adzuki beans. Suppression only when applied pre-emergence.

<sup>6</sup> Post-emergence only.

<sup>7</sup> Post-emergence only. Apply at the 2 to 8-leaf stage of biennial wormwood.

## Additional weeds controlled by Marksman Herbicide + Frontier® Max herbicide

foxtail, <i>green</i>	grass, <i>smooth crab</i>
foxtail, <i>yellow</i>	grass, <i>old witch</i>
grass, <i>barnyard</i>	nightshade, <i>Eastern black*</i>
grass, <i>large crab</i>	panicum, <i>fall</i>

\* *pre-emergence only - use 963 mL/ha Frontier Max herbicide*

**Additional weeds controlled by Marksman Herbicide + Dual® Magnum herbicide/  
Dual II Magnum herbicide**

foxtail, <i>giant</i>	grass, <i>crab</i>
foxtail, <i>green</i>	grass, <i>old witch</i>
foxtail, <i>yellow</i>	nightshade, <i>American</i>
grass, <i>barnyard</i>	panicum, <i>fall</i>

**Weeds controlled by Marksman Herbicide + Option® 35 DF or Option® 2.25 OD Liquid herbicide**

Tankmixing **Marksman Herbicide** with Option 35 DF or Option 2.25 OD Liquid herbicide will provide residual control of annual grasses and annual broadleaf weeds.

quackgrass

**Annual Grasses**

foxtail, <i>bristly</i>	grass, <i>large crab</i>
foxtail, <i>green</i>	millet, <i>proso</i>
foxtail, <i>yellow</i>	panicum, <i>fall</i>
grass, <i>barnyard</i>	witchgrass

**Annual Broadleaf Weeds**

chickweed, <i>common</i>	nightshade, <i>Eastern black</i>
lamb's-quarters	pigweed, <i>redroot</i>
mustard, <i>wild</i>	ragweed, <i>common</i> (suppression)
mustard, <i>wormseed</i>	velvetleaf

**Weeds controlled by Marksman Herbicide + Roundup Transorb® Liquid Herbicide or Roundup WeatherMax® with Transorb 2 Technology Liquid Herbicide**

Tankmixing **Marksman Herbicide** with Roundup Transorb Liquid Herbicide or Roundup WeatherMax with Transorb 2 Technology Liquid Herbicide will provide residual control of lamb's-quarter's, redroot pigweed, common ragweed and velvetleaf, in addition to weeds controlled when Roundup Transorb Liquid Herbicide or Roundup WeatherMax with Transorb 2 Technology Liquid Herbicide is applied alone. Consult the Roundup Transorb Liquid Herbicide/Roundup WeatherMax with Transorb 2 Technology Liquid Herbicide label for weeds controlled by Roundup Transorb Liquid Herbicide/Roundup WeatherMax with Transorb 2 Technology Liquid Herbicide.

**Weeds controlled by Marksman Herbicide + Liberty® 200SN herbicide**

Tankmixing **Marksman Herbicide** with Liberty 200SN will provide residual control of annual grasses and annual broadleaf weeds. This tank mix combination controls all weeds as listed on the **Marksman Herbicide** and Liberty 200SN herbicide labels.

## DIRECTIONS FOR USE

Apply atrazine at a maximum of 1.5 kg ai/ha per year either as a pre- or post-emergent application before corn reaches 30 cm in height. Treatments can be made once or twice per year but the maximum amount of atrazine used in a year cannot exceed 1.5 kg ai/ha. Atrazine may be applied alone or as a registered tank mix partner. Refer to the tank mix partners for further instructions.

## APPLICATION DIRECTIONS

Apply **Marksman Herbicide** alone or in a tank-mix with Frontier Max herbicide or Dual Magnum herbicide/Dual II Magnum herbicide in pre-emergence and post-emergence treatments. **Marksman Herbicide** can also be applied as a post-emergent treatment when tank-mixed with Option 35 DF, Option 2.25 OD Liquid Herbicide, Roundup Transorb Liquid Herbicide, Roundup WeatherMax with Transorb 2 Technology Liquid Herbicide or Liberty 200SN herbicide.

## WARNING

Apply Marksman + Roundup Transorb Liquid Herbicide/Roundup WeatherMax with Transorb 2 Technology Liquid Herbicide tank mix **ONLY** to glyphosate tolerant corn, i.e. varieties with the Roundup Ready® gene. **CORN VARIETIES WHICH ARE NOT DESIGNATED AS GLYPHOSATE TOLERANT WILL BE DAMAGED OR DESTROYED BY THIS TREATMENT.**

Apply Marksman + Liberty 200SN herbicide tank mix **ONLY** to glufosinate ammonium tolerant corn hybrids (for example, LibertyLink® seeds). **Application of Liberty 200SN herbicide to non-tolerant corn will result in severe crop injury or death of the crop.**

### Marksman Herbicide Treatment

1. **Pre-emergence** (*Eastern Canada only*) - Apply as a broadcast ground treatment after planting but before weeds and corn emerge.
2. **Post-emergence** - Apply as an "overlay" ground treatment from spike stage (emergence) up to 13 cm tall corn or 5-leaf stage.

Soil Texture	MARKSMAN HERBICIDE RATE	
	Application Type	
	Pre-Emergence	Post-Emergence
coarse (sand, sandy loam)	4.5 L/ha	3.7 L/ha
medium to fine (loam-clay)	4.5 L/ha	4.5 L/ha

### Marksman Herbicide + Frontier Max Herbicide or Dual Magnum Herbicide / Dual II Magnum Herbicide Tank Mix (*Eastern Canada only*)

1. **Pre-emergence** - Apply as a broadcast ground treatment after planting but before weeds and corn emerge.
2. **Post-emergence** - Apply as a broadcast ground treatment after corn and weed emergence, when corn is in the spike to 2-leaf stage and before grass weeds pass the 2-leaf stage.

**Marksman Herbicide + Option 35 DF or Option 2.25 OD Liquid Herbicide Tank Mix (Eastern Canada only)**

**Post-emergence** - Apply as a broadcast treatment from one-leaf stage up to 5-leaf stage of the corn plant. Consult the Option 35 DF or Option 2.25 OD Liquid herbicide label for the recommended leaf stage of weeds at application for best weed control.

**Marksman Herbicide + Roundup Transorb Liquid Herbicide or Roundup WeatherMax with Transorb 2 Technology Liquid Herbicide**

**Post-emergence** - Apply as a broadcast treatment from spike stage (emergence) up to 5-leaf stage of glyphosate tolerant corn (i.e., varieties with the Roundup Ready® gene). **CORN VARIETIES WHICH ARE NOT DESIGNATED AS GLYPHOSATE TOLERANT WILL BE DAMAGED OR DESTROYED BY THIS TREATMENT.**

**Marksman Herbicide + Liberty 200SN Herbicide**

**Post-emergence** - Apply as a broadcast treatment from one-leaf stage up to 5-leaf stage of glufosinate ammonium tolerant corn (e.g., LibertyLink® seeds). **Application of Liberty 200SN herbicide to non-tolerant corn will result in severe crop injury or death of the crop.** Consult the Liberty 200SN herbicide label for the recommended leaf stage of weeds at application for best weed control.

## Tank Mix Application Rates

Herbicide	SOIL TEXTURE	
	Coarse (sand, sandy loam)	Medium to Fine (loam to clay)
<b>Marksman Herbicide</b> + Frontier Max herbicide <sup>1</sup>	not recommended	4.5 L/ha + 756 – 963 mL/ha <sup>2</sup>
<b>Marksman Herbicide</b> + Dual Magnum <sup>3</sup> herbicide/ Dual II Magnum <sup>3</sup> herbicide	3.7 L/ha + 1.25 - 1.75 L/ha <sup>4</sup>	4.5 L/ha + 1.25 - 1.75 L/ha <sup>4</sup>
<b>Marksman Herbicide</b> + Option 35 DF liquid herbicide <sup>5</sup>	2.5 L/ha + 100 g/ha	2.5 L/ha + 100 g/ha
<b>Marksman Herbicide</b> + Option 2.25 OD liquid herbicide <sup>6</sup>	2.5 L/ha + 1.56 L/ha	2.5 L/ha + 1.56 L/ha
<b>Marksman Herbicide</b> + Roundup Transorb Liquid herbicide	2.5 - 3.7 L/ha <sup>7</sup> + 2.5 L/ha	2.5 - 3.7 L/ha <sup>7</sup> + 2.5 L/ha
<b>Marksman Herbicide</b> + Roundup WeatherMax with Transorb 2 Technology Liquid herbicide	2.5 - 3.7 L/ha <sup>7</sup> + 1.67 L/ha	2.5 - 3.7 L/ha <sup>7</sup> + 1.67 L/ha
<b>Marksman Herbicide</b> + Liberty 200SN herbicide	2.5 - 3.7 L/ha <sup>7</sup> + 1.5 - 2.5 L/ha <sup>8</sup>	2.5 - 3.7 L/ha <sup>7</sup> + 1.5 - 2.5 L/ha <sup>8</sup>

<sup>1</sup> *Frontier Max herbicide + **Marksman Herbicide** tank-mix applied post-emergence may cause some leaf burn, but yield will not be affected.*

<sup>2</sup> *Use the higher Frontier Max herbicide rate on fine textured or high organic soil and for heavier weed problems. Refer to Frontier Max herbicide label for details.*

<sup>3</sup> *Some leaf burn may occur when **Marksman Herbicide** is tank-mixed with Dual Magnum herbicide/Dual II Magnum herbicide.*

<sup>4</sup> *Use the higher Dual Magnum herbicide/Dual II Magnum herbicide rate for heavier weed problems.*

<sup>5</sup> *Option 35 DF herbicide is to be used in conjunction with Hasten™ spray additive at 1.75 L/ha plus liquid nitrogen fertilizer (28% UAN) at a rate of 2.5 L/ha. Use of a spray-grade liquid nitrogen fertilizer is recommended.*

<sup>6</sup> *Option 2.25 OD Liquid herbicide is to be used in conjunction with liquid nitrogen fertilizer (28% UAN) at a rate of 2.5 L/ha. Use of a spray-grade liquid nitrogen fertilizer is recommended.*

<sup>7</sup> *The higher rate of **Marksman Herbicide** should be used for heavier weed infestations.*

<sup>8</sup> *Tank mix **Marksman Herbicide** with the appropriate rate of Liberty 200SN herbicide for the targeted weed species. Refer to the Liberty 200SN herbicide label for rates and weeds controlled.*

## RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, **Marksman Herbicide** is both a Group 4 and a Group 5 herbicides. Any weed population may contain or develop plants naturally resistant to **Marksman Herbicide** and other Group 4 and 5 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 **Marksman Herbicide** or other Group 4 and 5 herbicides 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.
- Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural, biological and other chemical control practices.
- Monitor treated weed populations for resistance development.
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- 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 BASF at 1-877-371-2273.

## **CLEANING SPRAY EQUIPMENT**

### **Marksman Herbicide alone**

The following steps are suggested for thorough cleaning of spray equipment following applications of **Marksman Herbicide**.

1. Thoroughly hose down the inside and outside of equipment surfaces while filling the spray tank half-full with water. Flush by operating sprayer until the system is purged of the rinse water.
2. Fill the tank with water while adding 1 L of household ammonia (containing a minimum of 3% ammonia) for every 100 L of water. Operate the spray pump to circulate the ammonia solution through the sprayer solution for 15-20 minutes and discharge a small amount of the ammonia solution through the spray boom and nozzles. Let the solution stand for several hours, preferably overnight.
3. Flush the solution out of the spray tank through the boom.
4. Remove the nozzles and screens and flush the system with two tanks full of water.

### **Marksman Herbicide plus other herbicides**

The following steps are suggested for thorough cleaning of spray equipment used to apply **Marksman Herbicide** as a tank-mix with wettable powders (WP), emulsifiable concentrates (EC), or other types of water-dispersible formulations. These tank-mixes require a water-detergent rinse.

1. Thoroughly hose down the inside and outside of equipment surfaces while filling the spray tank half-full with water. Flush by operating sprayer until the system is purged of the rinse water.
2. Fill the tank with water while adding 1 kg of detergent for every 150 L of water. Operate the pump to circulate the detergent solution through the sprayer system for 5-10 minutes and discharge a small amount of the solution through the boom and nozzles. Let the solution stand for several hours, preferably overnight.
3. Flush the detergent solution out of the spray tank through the boom.
4. Remove the nozzles and screens and flush the system with two tanks full of water.

## DISPOSAL

### Recyclable Containers [10 L – 23 L]

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 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.

### aaReturnable-Refillable Containers [24 L – 1000 L]

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.

### Unused, Unwanted Product

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.

## STORAGE

1. Store **Marksman Herbicide** in its original container only, away from other pesticides, fertilizer, food or feed.
2. Keep the container closed to prevent spills and contamination.
3. If product is frozen, thaw in a warm room, allowing the product to reach room temperature, then roll or shake the container.

## 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.

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