

2022-2016
2024-02-27
Container Label

GROUP	10	HERBICIDE
--------------	-----------	------------------

LIBERTY[®] [®] 180 SN Herbicide

For use in glufosinate ammonium tolerant Canola grown in the
Prairie Provinces and Interior of British Columbia only

SOLUTION

COMMERCIAL

ACTIVE INGREDIENT: glufosinate ammonium..... 180 g/L

REGISTRATION NO. 35075 PEST CONTROL PRODUCTS ACT

DANGER – CORROSIVE TO THE EYES AND SKIN IRRITANT

POTENTIAL SKIN SENSITIZER

READ THE LABEL AND BOOKLET BEFORE USING

KEEP OUT OF REACH OF CHILDREN

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

NET CONTENTS: 1 L – 1000 L, Bulk

BASF Canada Inc.
5025 Creebank Road
Building A, 2nd Floor
Mississauga, ON L4W 0B6
1-877-371-2273

LIBERTY is a registered trademark of BASF SE and  and LIBERTY LINK are registered
trademarks of BASF Agricultural Solutions Seed US LLC, used under license by
BASF Canada Inc.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

DO NOT take internally.

CORROSIVE to the eyes. **DO NOT** get in eyes. Potential skin sensitizer. May irritate skin. Avoid contact with skin.

Avoid breathing spray mist.

Wash thoroughly after using and before eating, drinking or smoking.

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes, and protective eyewear (goggles or face shield) during mixing, loading, application, clean-up and repair. Gloves and protective eyewear (goggles or face shield) are not required during application within a closed cab and/or cockpit.

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.

It is desirable that the pilot have communication capabilities at each treatment site at the time of application.

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

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.

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.
Probable mucosal damage may contraindicate the use of gastric lavage.

ENVIRONMENTAL PRECAUTIONS

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

Avoid spray drift to susceptible plants.

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 in original container in a cool, secure and well-ventilated area separately from fertilizer. Avoid cross-contamination with other pesticides. Store this product away from food or feed. CANNOT be stored below freezing.

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.

Returnable Containers: Do not reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

Refillable Containers: 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 cleanup of spills.

Disposal of Unused Spray Solution: If any spray solution remains in the tank after spraying is finished, it should be sprayed on the perimeter of the area just sprayed, away from water supplies, ditches and irrigation canals.

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.

LIBERTY[®] 180 SN Herbicide

For use in glufosinate ammonium tolerant Canola grown in the
Prairie Provinces and Interior of British Columbia only

SOLUTION

COMMERCIAL

ACTIVE INGREDIENT: glufosinate ammonium..... 180 g/L

REGISTRATION NO. 35075 PEST CONTROL PRODUCTS ACT

DANGER – CORROSIVE TO THE EYES AND SKIN IRRITANT

POTENTIAL SKIN SENSITIZER

READ THE LABEL AND BOOKLET BEFORE USING

KEEP OUT OF REACH OF CHILDREN

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

NET CONTENTS: 1 L – 1000 L, Bulk

BASF Canada Inc.
5025 Creekbank Road
Building A, 2nd Floor
Mississauga, ON L4W 0B6
1-877-371-2273

LIBERTY is a registered trademark of BASF SE and  and LIBERTY LINK are registered
trademarks of BASF Agricultural Solutions Seed US LLC, used under license by
BASF Canada Inc.


LIBERTY 180 SN HERBICIDE

Table of Contents

		<i>Section Number</i>
GENERAL INFORMATION	The Product	1
SAFETY AND HANDLING	Precautions, Protective Clothing and Equipment	2
	First Aid and Toxicological Information	3
	Environmental Precautions	4
	Storage	5
	Disposal	6
DIRECTIONS FOR USE	Crops, Weeds, Timing and Rates	7
	Tank Mixes	8
	Resistance Management Recommendations	9
	Application Instructions and Precautions	10
	Mixing Instructions	11
	Sprayer Cleanup	12
	Livestock Feeding and Pre-harvest Intervals	13
	Notices	14

GENERAL INFORMATION

Section 1: The Product

- LIBERTY 180 SN Herbicide provides control of a broad spectrum of grassy and broadleaf weeds in canola varieties or hybrids that are specially developed to be tolerant to glufosinate ammonium.
- LIBERTY 180 SN Herbicide is for use on glufosinate ammonium tolerant canola varieties or hybrids [example: varieties or hybrids labelled with LibertyLink® and the  symbol].
- LIBERTY 180 SN Herbicide may also be applied to glufosinate ammonium tolerant lines or varieties grown for seed production.

SAFETY AND HANDLING

Section 2: Precautions and Protective Clothing and Equipment

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN. DO NOT take internally. **CORROSIVE** to the eyes. **DO NOT** get in eyes. Potential skin sensitizer. May irritate skin. Avoid contact with skin. Avoid breathing spray mist. Wash thoroughly after using and before eating, drinking or smoking.

Protective Clothing and Equipment

- Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes, and protective eyewear (goggles or face shield) during mixing, loading, application, clean-up and repair. Gloves and protective eyewear (goggles or face shield) are not required during application within a closed cab and/or cockpit.
- Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.
- It is desirable that the pilot have communication capabilities at each treatment site at the time of application.
- All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

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.

Section 3: First Aid and Toxicological Information

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 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 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 treatment advice.

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

TOXICOLOGICAL INFORMATION

Treat symptomatically. Probable mucosal damage may contraindicate the use of gastric lavage.

Section 4: Environmental Precautions

- Toxic to aquatic organisms and non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE.
- Avoid spray drift to susceptible plants.
- 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.

Section 5: Storage

Store in original container in a cool, secure and well-ventilated area separately from fertilizer. Avoid cross-contamination with other pesticides. Store this product away from food or feed. CANNOT be stored below freezing.

Section 6: Disposal

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.

Returnable Containers: Do not reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

Refillable Containers: 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 cleanup of spills.

Disposal of Unused Spray Solution: If any spray solution remains in the tank after spraying is finished, it should be sprayed on the perimeter of the area just sprayed, away from water supplies, ditches and irrigation canals.

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.

POST-EMERGENT USE

Section 7: Crops, Weeds, Timing and Rates
--

CANOLA - PRAIRIE PROVINCES AND INTERIOR OF BRITISH COLUMBIA ONLY

LIBERTY 180 SN Herbicide is registered for aerial and ground application to glufosinate ammonium tolerant canola varieties or hybrids [example: varieties or hybrids labelled with LibertyLink® and the symbol 

- **To assure crop safety and optimal herbicide performance, only use LIBERTY 180 SN Herbicide on glufosinate ammonium tolerant (i.e., LibertyLink) canola grown from certified seed.**
- LIBERTY 180 SN Herbicide is not registered for use on other glufosinate ammonium tolerant crops.
- **Application of LIBERTY 180 SN Herbicide to non-tolerant canola varieties or hybrids or other non-tolerant crops will result in severe crop injury or death of the crop.**

- Apply LIBERTY 180 SN Herbicide from the cotyledon stage up until, but prior to, early bolting stage of canola.
- Refer to weed/rate chart in this label for application rates and weeds controlled.
- For control/suppression of late emerging weeds or if new weed germination or growth is present, re-apply LIBERTY 180 SN Herbicide.
- Up to three applications of LIBERTY 180 SN Herbicide, each at a maximum of 3.33 L/ha may be made. The third application must occur prior to the early bolting stage of canola.
- **Do not apply more than a total of 10 L/ha per year of Liberty 180 SN Herbicide.**
- Apply when the new weed growth is in the correct leaf stage and up until, but prior to, the bolting stage of canola. For best results, apply to emerged, young, actively growing weeds. Weeds that emerge after application will not be controlled.
- LIBERTY 180 SN Herbicide will have an effect on weeds that are larger than the recommended leaf stage; however, speed of activity and control may be reduced.
- Slight discoloration of the canola may be visible after application. This effect is temporary and will not influence crop growth, maturity or yield.
- **For application to glufosinate ammonium and glyphosate tolerant canola varieties or hybrids (example: canola varieties or hybrids labelled with *LibertyLink* and *Roundup Ready* or *TruFlex* or *Optimum Gly*):** LIBERTY 180 SN Herbicide should be applied in a sequential program with glyphosate for effective weed control. Tank-mixing LIBERTY 180 SN Herbicide with glyphosate may result in reduced control on certain weed species. LIBERTY 180 SN Herbicide may also be applied to glufosinate ammonium tolerant canola lines or varieties grown for seed production.
- **For hybrid seed production** - Two applications are required to remove the segregating wild type plants. The first application should occur when the canola is in the 2-4 leaf stage, the second application when the canola plants are in the 4-6 leaf stage and the third application, if necessary, may be applied to the canola up until, but prior to, the bolting stage. All applications of LIBERTY 180 SN Herbicide for hybrid seed production should be made at 2.78 – 3.33 L/ha.

SUSCEPTIBLE WEEDS: LIBERTY 180 SN Herbicide has an effect on all weeds and crops except for those crops which are developed to be tolerant to applications of LIBERTY 180 SN Herbicide. The following weeds are susceptible to application of LIBERTY 180 SN Herbicide. Best control will be obtained when LIBERTY 180 SN Herbicide is applied in the recommended leaf stages.

WEEDS CONTROLLED

Use Rate: 1.11 L/ha

Weed	Recommended Leaf Stage
Cow cockle	1 – 4 leaf
Green foxtail	1 - 6 leaf (maximum 3 tillers)

Use Rate: 1.67 L/ha

Weed	Recommended Leaf Stage

Barnyard grass	1 – 4 leaf
Lady's-thumb	1 – 6 leaf
Lamb's-quarters	1 – 6 leaf
Russian Thistle	Up to 8 cm in height
Smartweed	1 – 6 leaf
Stinkweed	1 – 8 leaf
Volunteer Flax	Up to 6 cm in height
Wild Mustard	1 – 5 leaf

Use Rate: 2.22 L/ha

Weed	Recommended Leaf Stage
Canada Thistle ¹	Up to 10 cm in height
Common Chickweed	1 – 4 leaf pairs
Hempnettle	1 – 3 leaf pairs
Kochia	Up to 8 cm in height
Perennial Sow-thistle	1 – 8 leaf
Quackgrass ¹	1 – 4 leaf
Redroot Pigweed	1 – 4 leaf
Round-leaved Mallow	1 – 4 leaf
Scentsless Chamomile	Up to 10 cm in height
Shepherd's-purse	1 – 6 leaf
Volunteer Barley ²	1 – 4 leaf (maximum 2 tillers)
Volunteer Wheat	1 – 4 leaf (maximum 2 tillers)
Wild Buckwheat	1 – 3 leaf

Use Rate: 2.78 L/ha

Weed	Recommended Leaf Stage
Cleavers	1 – 2 whorls
Dandelion	1 – 15 cm rosette
Flixweed	Up to 10 cm in height
Hempnettle	1 – 4 leaf pairs
Jimsonweed	1 – 6 leaf
Quackgrass ³	1 – 4 leaf
Stork's-bill	1 – 3 leaf
Wild Oats	1 – 4 leaf (maximum 2 tillers)
Heavy Populations	
Canada Thistle ¹	Up to 10 cm in height
Quackgrass ¹	1 – 4 leaf
Volunteer Barley ²	1 – 4 leaf (maximum 2 tillers)

Volunteer Wheat	1 – 4 leaf (maximum 2 tillers)
Wild Buckwheat	1 – 3 leaf

Use Rate: 3.33 L/ha

Weed	Recommended Leaf Stage
Canada Thistle ⁴	Up to 10 cm in height
Jimsonweed ⁵	1 – 6 leaf
Quackgrass ⁶	1 – 4 leaf
Japanese Brome ⁷	1 – 6 leaf (up to emergence of 1 st tiller)
Downy Brome ⁷	1 – 6 leaf (up to emergence of 1 st tiller)

¹ Top Growth Suppression Only

² Suppression Only

³ Improved Top Growth Control

⁴ Better Top Growth Suppression

⁵ Improved Control

⁶ Season Long Control for Heavy Populations

⁷ Spring-germinated Brome Only; best results are obtained after a pre-seed or burndown application with a glyphosate herbicide.

Section 8: Tank Mixes

- This product may be tank mixed 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 may result in reduced pesticide efficacy or increased host crop injury. The user should contact BASF Canada Inc. at 1877-371-2273 for information before applying any tank mix that is not specifically recommended on this label.
- Tank mix partners may have additional restrictions for leaf staging.
- For enhanced activity, LIBERTY 180 SN Herbicide may be tank mixed with the following products.

CANOLA

TANK MIX PRODUCT	RATE	DIRECTIONS
Centurion® Emulsifiable Concentrate Post-Emergence Herbicide or Select® Emulsifiable Concentrate Post-	63 mL/ha	For control of volunteer barley and wild oats, apply LIBERTY 180 SN Herbicide at a rate of 2.22 – 3.33 L/ha plus Centurion Emulsifiable Concentrate Post-Emergence Herbicide or Select Emulsifiable Concentrate Post-Emergence Herbicide at 63 mL/ha with adjuvant as recommended on the Centurion Emulsifiable Concentrate Post-Emergence Herbicide or Select

Emergence Herbicide		Emulsifiable Concentrate Post-Emergence Herbicide label. Apply when the weeds are in the 1-4 leaf stage with a maximum of 2 tillers.
Centurion Emulsifiable Concentrate Post-Emergence Herbicide or Select Emulsifiable Concentrate Post-Emergence Herbicide	190 mL/ha	For control of weed species listed on the LIBERTY 180 SN Herbicide and Centurion Emulsifiable Concentrate Post-Emergence Herbicide or Select Emulsifiable Concentrate Post-Emergence Herbicide label plus foxtail barley, spring-germinated Japanese and downy brome, apply LIBERTY 180 SN Herbicide at a rate of 2.78 – 3.33 L/ha in tank mixture with Centurion Emulsifiable Concentrate Post-Emergence Herbicide or Select Emulsifiable Concentrate Post-Emergence Herbicide at 190 mL/ha and adjuvant as recommended on the Centurion Emulsifiable Concentrate Post-Emergence Herbicide or Select Emulsifiable Concentrate Post-Emergence Herbicide label. Apply when the weeds are at growth stages listed on the LIBERTY 180 SN Herbicide, Centurion Emulsifiable Concentrate Post-Emergence Herbicide and Select Emulsifiable Concentrate Post-Emergence Herbicide labels, foxtail barley is at the 1-4 leaf stage with a maximum of 2 tillers and spring-germinated Japanese and downy brome are at the 1- to 6-leaf up to the emergence of the 1 st tiller stage.
Facet® L + Merge® Adjuvant	0.28 – 0.56 L/ha + 0.5 – 1.0%v/v	For enhanced and more consistent control of cleavers from the 1 to 6 whorl stage, apply LIBERTY 180 SN Herbicide at a rate of 2.78 – 3.33 L/ha plus Facet L at 0.28 L/ha. Higher rates of Facet L (0.42 – 0.56 L/ha) will provide suppression of secondary flushes of cleavers. Use the 0.56 L/ha rate when cleaver densities are high, when staging is late or for improved residual control. Apply in 100 L/ha of water with Merge Adjuvant at a rate of 0.5 to 1% v/v. Application should be made from the cotyledon to 6 true leaf stage of the canola crop.
Facet L + Centurion Emulsifiable Concentrate Post-Emergence Herbicide + Amigo® Adjuvant or Merge Adjuvant	0.28 – 0.56 L/ha + 63 – 190 mL/ha + 0.5% v/v	For enhanced and more consistent control of cleavers from the 1 to 6 whorl stage and annual grasses, apply LIBERTY 180 SN Herbicide at a rate of 2.78 – 3.33 L/ha plus Facet L at 0.28 – 0.56 L/ha plus Centurion Emulsifiable Concentrate Post-Emergence Herbicide at 63 – 190 mL/ha. Apply in 100 L/ha of water with Amigo Adjuvant or Merge Adjuvant at 0.5% v/v . Application should be made from the cotyledon to

		6 true leaf stage of the canola crop.
--	--	---------------------------------------

Section 9: Resistance Management Recommendations

For resistance management, LIBERTY 180 SN Herbicide is a Group 10 herbicide. Any weed population may contain or develop plants naturally resistant to LIBERTY 180 SN Herbicide and other Group 10 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 LIBERTY 180 SN Herbicide or other Group 10 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 BASF at 1-877-371-2273 or at www.agsolutions.ca.

Section 10: Application Instructions and Precautions

APPLICATION INSTRUCTIONS

- The speed of action of LIBERTY 180 SN Herbicide is influenced by environmental factors. At cool temperatures (below 10° C), poor moisture and low humidity, the speed of action may be reduced. Generally, visual symptoms appear 2-4 days after application.
- For best results, apply to emerged, young, actively growing weeds. Weeds that emerge after application will not be controlled.

- LIBERTY 180 SN Herbicide will have an effect on weeds that are larger than the recommended leaf stage; however, speed of activity and control may be reduced.
- LIBERTY 180 SN Herbicide works primarily as a contact herbicide. Thorough coverage of the weeds to be controlled is essential. Increased water volumes should be used to maximize efficacy when weed or crop growth is dense, weeds are larger or more mature, or environmental conditions are not ideal.
- When a rate range is given, the higher rate should be utilized:
 1. when the weed or crop growth is dense;
 2. when the weeds are large and/or mature - i.e., advanced leaf stages and plant height;
 3. when the environmental conditions are cool and dry.
- Refer to Section 7 for weeds controlled.

Ground Application Instructions:

- Ensure that all circuits (pipes, booms etc.) have the correct LIBERTY 180 SN Herbicide / water concentration before application is started.
- Apply LIBERTY 180 SN Herbicide in a minimum of 100 L/ha of water, at a pressure of 275 kPa and at a ground speed of 6-8 kph. If check valves are used, apply at 310 kPa. The use of 80° or 110° flat fan nozzles is highly recommended for optimum spray coverage and canopy penetration.
- Application of the spray at a 45° angle forward will result in better spray coverage. Refer to Sections 7 and 8 for the correct rate and timing of application.

Aerial Application Instructions

- Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.
- Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.
- Exercise extreme caution during the aerial application of any insecticide, herbicide or fungicide. Drift of pesticides is not always visible with the human eye. Small droplets may drift into sensitive areas without obvious signs of danger. Follow these directions precisely.
- When applying LIBERTY 180 SN Herbicide by aircraft, uniform spray coverage is essential. Applicators are required to use the correct combination of spray nozzle tips, nozzle placement and spray pressures which will provide a coarse droplet size distribution with a volume mean diameter greater than 350 microns. Do not use raindrop nozzles. To avoid streaked, uneven or overlapped application, use appropriate marking devices.
- **Post-emergent Use in Glufosinate Ammonium Tolerant Canola Water Volume:** Apply LIBERTY 180 SN Herbicide in a minimum of 50 L/ha of water only.

APPLICATION PRECAUTIONS

- Weed control may be reduced when heavy dew, fog or mist is present at the time of application.
- Uniform, thorough spray coverage is important to achieve consistent weed control.
- Crop injury may result if LIBERTY 180 SN Herbicide is applied to a crop stressed by severe weather conditions, frost, drought, water-saturated soil, low fertility, disease or insect damage.
- LIBERTY 180 SN Herbicide is a non-selective herbicide and has the potential to desiccate, defoliate or kill all green plants. Avoid contact with other desirable plants or crops by direct

application or from spray drifts as severe damage may occur.

- **Application of LIBERTY 180 SN Herbicide to non-tolerant canola varieties, hybrids or other non-tolerant crops will result in severe crop injury or death of the crops.**
- **To assure crop safety and optimal herbicide performance, only use LIBERTY 180 SN Herbicide on glufosinate ammonium tolerant (i.e., LibertyLink) canola grown from certified seed.**

Plant-back Intervals

- No plant-back interval is required for field corn, canola, soybeans, dry common beans (not grown for seed), alfalfa, carrot, lettuce, onion and potato.
- 70 days for buckwheat, barley, millet, oats, rye, sorghum, triticale, wheat, other root and leafy vegetables.
- 120 days for all other crops.

Ground Application Precautions

- 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 S572.1) medium classification. Boom height must be 60 cm or less above the crop or ground.
- **DO NOT** apply if winds exceed 16 kph when using open boom sprayers for ground application.
- **DO NOT** apply if winds exceed 25 kph when using hooded sprayer for ground application.
- Do not use flood jet nozzles, controlled droplet application equipment or air-assisted spray equipment.

Aerial Application Precautions

- Aerial application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply when wind speed is greater than 16 km/h at flying height at the site of application. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) coarse classification. Reduce drift caused by turbulent wingtip vortices. Nozzle distribution along the spray boom length **MUST NOT** exceed 65% of the wingspan or rotorspan.
- Read and understand the entire label before opening this product. If you have questions, call BASF Canada at 1-877-371-2273 or obtain technical advice from the distributor or your provincial agricultural representative.

Rainfast Period

- If rainfall occurs within 4 hours of application, effectiveness may be reduced.

Spray Buffer Zones

A spray buffer zone is NOT required for:

- uses with hand-held application equipment permitted on this label,
- low-clearance hooded or shielded sprayers that prevent spray contact with crop, fruit or foliage.

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).

Method of application	Crop	Spray Buffer Zones (metres) Required for the Protection of:		
		Freshwater Habitat of Depths:		Terrestrial Habitat
		Less than 1 m	Greater than 1 m	
Field sprayer	Canola	1	0	1
Aerial	Canola (fixed and rotary wing)	1	0	35

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.

Section 11: Mixing Instructions

- LIBERTY 180 SN Herbicide must be applied with properly calibrated, clean equipment.
- LIBERTY 180 SN Herbicide is specially formulated to mix readily in water.
- Prior to adding LIBERTY 180 SN Herbicide to the spray tank, ensure that the spray tank is thoroughly clean (see Section 12, “Sprayer Cleanup”).
 1. Fill the tank three-quarters full with clean water.
 2. Add the correct amount of LIBERTY 180 SN Herbicide.
 3. Add the remaining amount of water, begin agitation, and spray out immediately.

LIBERTY 180 SN Herbicide and Facet L (Glufosinate Ammonium Tolerant Canola only)

When tank mixing with Facet L, always add LIBERTY 180 SN Herbicide first followed by Facet L, then add Merge Adjuvant.

LIBERTY 180 SN Herbicide and CENTURION Emulsifiable Concentrate Post-Emergence Herbicide or SELECT Emulsifiable Concentrate Post-Emergence Herbicide: Glufosinate Ammonium Tolerant Canola only

When tank mixing LIBERTY 180 SN Herbicide and CENTURION Emulsifiable Concentrate Post-Emergence Herbicide or SELECT Emulsifiable Concentrate Post-Emergence Herbicide, always add AMIGO Adjuvant to the tank first, **then** add LIBERTY 180 SN Herbicide to the tank followed by the CENTURION Emulsifiable Concentrate Post-Emergence Herbicide or SELECT Emulsifiable Concentrate Post-Emergence Herbicide. When tank mixing with Facet L, always add AMIGO Adjuvant or Merge Adjuvant to the tank first, **then** add LIBERTY 180 SN Herbicide followed by Facet L, followed by CENTURION Emulsifiable Concentrate Post-Emergence Herbicide.

The addition of an anti-foaming agent may reduce foaming, especially when using soft water.

1. Thoroughly clean the sprayer by flushing the system with water containing detergent (see

- Section 12, "Sprayer Cleanup").
2. Fill clean spray tank half full with clean water. Start agitation system. Agitation should be running during the entire mixing procedure.
 3. Add the correct amount of AMIGO Adjuvant. Continue to agitate until AMIGO Adjuvant is thoroughly mixed.
 4. Add the required amount of LIBERTY 180 SN Herbicide to the spray tank. Continue to agitate until LIBERTY 180 SN Herbicide is thoroughly mixed.
 5. If required, add the correct amount of Facet L.
 6. Add the correct amount of CENTURION Emulsifiable Concentrate Post-Emergence Herbicide or SELECT Emulsifiable Concentrate Post-Emergence Herbicide along with the remaining amount of water necessary to fill the spray tank.
 7. Continue to agitate or run the by-pass system, and spray out immediately.
 8. After any break in the 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 overnight.
 9. If an oil film starts to build up in the tank, drain it and clean tank with strong detergent solution.
 10. Immediately after use, thoroughly clean the sprayer by flushing the system with water containing detergent (see Section 12, "Sprayer Cleanup").

Section 12: Sprayer Cleanup

- Before and after using LIBERTY 180 SN Herbicide always complete a thorough cleaning of the spray tank, lines, and filter. Spray equipment should be thoroughly rinsed using a strong detergent solution.

Section 13: Livestock Feeding and Preharvest Intervals

LIVESTOCK FEEDING

Canola

- Grain and meal from treated crop can be fed to livestock.
- Do not graze the treated crop or cut for hay.

PREHARVEST INTERVALS (PHI)

Canola:

- When LIBERTY 180 SN Herbicide is tank mixed with Centurion Emulsifiable Concentrate Post-Emergence Herbicide or Select Emulsifiable Concentrate Post-Emergence Herbicide, observe a PHI of 60 days from the date of treatment (or last treatment when a second application has been made).
- When LIBERTY 180 SN Herbicide is tank mixed with Facet L, observe a PHI of 60 days from the date of treatment.

Section 14: Notices

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.

FACET is a registered trademark of BASF SE, used under license by BASF Canada Inc.

MERGE is a registered trademark of BASF Canada Inc.

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