GROUP 14 HERBICIDE

## **COMMAND® CHARGE B Herbicide**

Emulsifiable Concentrate

COMMERCIAL (AGRICULTURAL)

For control of listed weeds in rapeseed (canola) and mustard.

ACTIVE INGREDIENT: Carfentrazone-ethyl......240 g/L

# READ THE LABEL AND ACCOMPANYING BOOKLET BEFORE USING KEEP OUT OF THE REACH OF CHILDREN

## **CAUTION**

## **EYE AND SKIN IRRITANT**

**REGISTRATION NUMBER** 33535 PEST CONTROL PRODUCTS ACT

**NET CONTENTS:** 0.5 Litre - 1,020 Litres

FMC of Canada Limited 6755 Mississauga Road, Suite 204 Mississauga, ON L5N 7Y2 1-833-362-7722

## **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.

## **PRECAUTIONS**

#### KEEP OUT OF THE REACH OF CHILDREN.

#### HAZARDOUS TO HUMANS AND DOMESTIC ANIMALS

**Caution.** Harmful if swallowed, absorbed through the skin or inhaled. Causes moderate eye irritation. Avoid breathing vapours. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Do not use or store near heat or open flame.

## DO NOT apply by air.

#### PERSONAL PROTECTIVE EQUIPMENT

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

#### **RESTRICTED-ENTRY INTERVAL:**

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

Apply only to agricultural crops when the potential for drift beyond the area to be treated is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.

## **ENVIRONMENTAL PRECAUTIONS**

This product contains aromatic petroleum distillates, which are toxic to aquatic organisms. Toxic to aquatic organisms, aquatic plants and non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE.

To reduce runoff from treated areas into aquatic habitats, avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body.

## **FIRST AID**

**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 ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin IMMEDIATELY with plenty of water for 15 to 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 to 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. Contains petroleum distillates. Do not induce vomiting unless told to do so by the poison control centre or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

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

You may also call 1-800-331-3148 for emergency medical treatment information.

## **TOXICOLOGICAL INFORMATION**

**Note to Physician:** COMMAND® CHARGE B Herbicide is expected to have low oral and dermal toxicity, and moderate inhalation toxicity. It is expected to be slightly irritating to the skin and minimally irritating to the eyes. Treatment is otherwise controlled by removal of exposure followed by symptomatic and supportive care. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia.

## **STORAGE**

Store this product away from food or feed. Not for use or storage in or around the home. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Isolate COMMAND® CHARGE B Herbicide in storage to prevent contamination of other pesticides, fertilizers, water, food or animal feeds. In case of spill, avoid contact, isolate area and keep out unprotected persons and animals. Confine spills. Call FMC: 1-800-331-3148.

## **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-rinse 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.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial/territorial regulatory agency. Contact the manufacturer and the provincial/territorial regulatory agency in case of a spill, and for clean-up of spills.

## IN CASE OF EMERGENCY, CALL 1-800-331-3148 (24 HOURS).

COMMAND® is a trademark of FMC Corporation or an affiliate.

GROUP 14 HERBICIDE

## **COMMAND® CHARGE B Herbicide**

Emulsifiable Concentrate

COMMERCIAL (AGRICULTURAL)

For control of listed weeds in rapeseed (canola) and mustard

ACTIVE INGREDIENT: Carfentrazone-ethyl......240 g/L

# READ THE LABEL AND ACCOMPANYING BOOKLET BEFORE USING KEEP OUT OF THE REACH OF CHILDREN

## CAUTION

## **EYE AND SKIN IRRITANT**

**REGISTRATION NUMBER** 33535 PEST CONTROL PRODUCTS ACT

FMC of Canada Limited 6755 Mississauga Road, Suite 204 Mississauga, ON L5N 7Y2 1-833-362-7722

## **GENERAL INFORMATION**

## **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.

## **PRODUCT INFORMATION**

COMMAND® CHARGE B Herbicide is an emulsifiable concentrate formulation. COMMAND® CHARGE B Herbicide is to be mixed with water and listed adjuvants and applied to labelled crops or sites.

COMMAND® CHARGE B Herbicide used as directed will provide selective post-emergence control of broadleaf weeds and weed burndown prior to planting.

Weed control is optimized when the product is applied to actively growing weeds up to 10 cm in height, or as specified. COMMAND® CHARGE B Herbicide is a contact herbicide. Within a few hours following application, the foliage of susceptible weeds shows signs of desiccation, and in subsequent days, necrosis and death of the plant occur.

Extremes in environmental conditions such as temperature, moisture, soil conditions, and cultural practices may affect the activity of COMMAND® CHARGE B Herbicide. Under warm moist conditions, herbicide symptoms may be accelerated. Under very dry conditions, the expression of herbicide symptoms may be reduced as weeds hardened off by drought are less susceptible to COMMAND® CHARGE B Herbicide.

COMMAND® CHARGE B Herbicide is rapidly absorbed through the foliage of plants. To avoid significant crop response, applications should not be made within 6 to 8 hours of either rain or irrigation or when heavy dew is present on the crop. Due to environmental conditions and with certain spray tank additives, some herbicidal symptoms may appear on the crop.

## SAFETY AND HANDLING

## PRECAUTIONS, PROTECTIVE CLOTHING AND EQUIPMENT

#### **PRECAUTIONS**

KEEP OUT OF THE REACH OF CHILDREN.

#### HAZARDOUS TO HUMANS AND DOMESTIC ANIMALS

**Caution.** Harmful if swallowed, absorbed through the skin or inhaled. Causes moderate eye irritation. Avoid breathing vapours. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Do not use or store near heat or open flame.

DO NOT apply by air.

#### PERSONAL PROTECTIVE EQUIPMENT

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

#### **RESTRICTED-ENTRY INTERVAL:**

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

Apply only to agricultural crops when the potential for drift beyond the area to be treated is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.

## **ENVIRONMENTAL PRECAUTIONS**

This product contains aromatic petroleum distillates, which are toxic to aquatic organisms.

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

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body.

## FIRST AID AND TOXICOLOGICAL INFORMATION

## **FIRST AID**

**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 IMMEDIATELY for further treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 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 to 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. Contains petroleum distillates. Do not induce vomiting unless told to do so by the poison control centre or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

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

You may also call 1-800-331-3148 for emergency medical treatment information.

## **TOXICOLOGICAL INFORMATION**

**Note to Physician:** COMMAND<sup>®</sup> CHARGE B Herbicide is expected to have low oral and dermal toxicity, and moderate inhalation toxicity. It is expected to be slightly irritating to the skin and minimally irritating to the eyes. Treatment is otherwise controlled by removal of exposure followed by symptomatic and supportive care. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia.

## **STORAGE**

Store this product away from food or feed. Not for use or storage in or around the home. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Isolate COMMAND® CHARGE B Herbicide in storage to prevent contamination of other pesticides, fertilizers, water, food or animal feeds. In case of spill, avoid contact, isolate area and keep out unprotected persons and animals. Confine spills. Call FMC: 1-800-331-3148.

## **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-rinse 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.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial/territorial regulatory agency. Contact the manufacturer and the provincial/territorial regulatory agency in case of a spill, and for clean-up of spills.

## IN CASE OF EMERGENCY, CALL 1-800-331-3148 (24 HOURS).

#### **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.

COMMAND® CHARGE B Herbicide can be applied only one time per growing season.

## WEEDS AND CROP USES WEEDS CONTROLLED

When used as directed, COMMAND® CHARGE B Herbicide will provide control of the listed weeds up to ten (10) cm in height, or as specified.

Weeds Controlled	COMMAND® CHARGE B Herbicide Use Rate mL per hectare
Lamb's-quarters, common (up to 7.5 cm tall)	
Morning glory (up to 3 leaves)	36.5 mL
Nightshade, black (up to 5 cm tall)	
Nightshade, Eastern black (up to 5 cm tall)	
Pigweed, redroot	
Velvetleaf	
Waterhemp, tall (up to 5 cm tall)	
All the weeds controlled at 36.5 mL per hectare plus the weeds listed below:	58 mL
Flixweed	
Lamb's-quarters, common	
Mallow, round-leaved	
Morning glory	
Nightshade, hairy	
Pennycress, field (stinkweed)	
Pigweed, prostrate	
Pigweed, smooth	
Pigweed, tumble	
Purslane, common	
Smartweed, Pennsylvania (seedling)	
Mustard, tansy	
Waterhemp, tall	
Waterhemp, common	

Weeds Controlled	COMMAND <sup>®</sup> CHARGE B Herbicide Use Rate mL per hectare
All the weeds controlled at 58 mL per hectare plus the weeds listed below:	73 mL
Carpetweed	
Cleavers	
Cocklebur	
Jimsonweed	
Kochia	
Nightshade, black	
Nightshade, Eastern black	
Thistle, Russian (up to 5 cm tall)	
Shepherd's purse	
Canola, volunteer, including glyphosate- tolerant	
All the weeds controlled at 73 mL per hectare plus the weeds listed below:	117mL
Burclover	
Lettuce, prickly	
Mallow, Venice (up to 5 cm tall)	
Spurry, corn	

## **PREPLANT BURNDOWN**

COMMAND® CHARGE B Herbicide may be used for preplant burndown applications in rapeseed (canola) and mustard (oilseed; brown, Oriental, yellow).

## **COMMAND® CHARGE B HERBICIDE USE RATES FOR PRE-PLANT BURNDOWN**

Apply COMMAND® CHARGE B Herbicide for pre-plant burndown at 36.5 to 117 mL per hectare. For optimum performance, make application to actively growing weeds up to 10 cm high, or as specified. **Coverage of the weeds is essential for good control**.

## ADJUVANT RECOMMENDATIONS FOR PRE-PLANT BURNDOWN

When using COMMAND® CHARGE B Herbicide, use a non-ionic surfactant at 0.25% v/v (0.25 litres per 100 litres of spray solution) or use Merge® at 1% v/v (1 litre per 100 litres of spray solution) unless otherwise indicated.

#### 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 can result in reduced pesticide efficacy or increased host crop injury. The user should contact FMC of Canada Limited at 1-833-362-7722 for information before applying any tank mix that is not specifically recommended on this label.

#### COMMAND® CHARGE B HERBICIDE PLUS COMMAND® CHARGE A HERBICIDE

For use as part of an integrated approach for the control of weeds in herbicide-tolerant canola varieties and mustard (oilseed; brown, Oriental, yellow). Application of a post emergence herbicide (e.g., a herbicide to which the crop variety is tolerant) is recommended.

Apply as a single, soil-applied application prior to seeding.

Apply in a minimum of 100 L of water per hectare.

Do not incorporate.

Do not apply to sandy soil. Control may be reduced in high organic matter soils.

This tank mix requires the addition of a non-ionic surfactant at 0.25% v/v (0.25 litres per 100 litres of spray solution) or Merge<sup>®</sup> at 1% v/v (1 litre per 100 litres of spray solution).

Apply COMMAND CHARGE® B Herbicide at 36.5 – 117 mL/ha with COMMAND® CHARGE A at 0.25 L/ha for mustard and 0.25 – 0.33 L/ha for canola in a total spray volume of 100 L/ha. This tank mix will control weeds listed on this label, corresponding to the rate of COMMAND® CHARGE B Herbicide applied, as well as those listed in the following table.

Tank Mix Partner	Crop	Application Rate	Application Stage	Weeds Controlled/Suppressed <sup>1</sup>	
COMMAND® CHARGE A Herbicide	Herbicide- tolerant canola, Mustard (oilseed; brown, Oriental, yellow)	0.25 L/ha	Apply as a single, soil-applied application prior to	Cleavers (early season suppression) Common chickweed (suppression)	
	Herbicide- tolerant canola	0.33 L/ha	seeding	Cleavers (early season control) Common chickweed (suppression)	

<sup>&</sup>lt;sup>1</sup>Suppression is a visual reduction in weed competition (reduced population and/or vigor) as compared to an untreated area. Competition by weeds listed as suppressed that remain in a crop will vary depending upon factors such as crop competition, weed biotype, the number of weed seeds in the soil and the time of weed emergence relative to crop emergence.

Temporary whitening and/or yellowing of the crop may occur when emerging from the treated soil. Susceptible weed species may emerge from the soil but are devoid of pigmentation and plant death occurs in a short period of time.

## COMMAND® CHARGE B HERBICIDE PLUS COMMAND® CHARGE A HERBICIDE PLUS GLYPHOSATE

For use as part of an integrated approach for the control of weeds in herbicide-tolerant canola varieties and mustard (oilseed; brown, Oriental, yellow). Application of a post emergence herbicide (e.g., a herbicide to which the crop variety is tolerant) is recommended.

Apply as a single, soil-applied application prior to seeding.

Apply in a minimum of 100 L of water per hectare.

Do not incorporate the tank mix.

Do not apply to sandy soil. Control may be reduced in high organic matter soils.

Apply COMMAND® CHARGE B Herbicide at 36.5 - 117 mL/ha with COMMAND® CHARGE A at 0.25 L/ha for mustard and 0.25 - 0.33 L/ha for canola and glyphosate at 450 - 900 g ae/ha in a total spray volume of 100 L/ha. This tank mix will control weeds listed on this label, corresponding to the rate of COMMAND® CHARGE B Herbicide applied, as well as those listed in the following table. An adjuvant is not required for this tank mix.

Tank Mix Partner	Crop	Application Rate	Application Stage	Weeds Controlled/ Suppressed <sup>1</sup>
COMMAND® CHARGE A Herbicide	Herbicide- tolerant canola, Mustard (oilseed, brown, Oriental, yellow)	0.25 L/ha –	Apply as a single, soil-applied application prior to seeding	Cleavers (early-season suppression) Common chickweed (suppression)
	Herbicide- tolerant canola	0.33 L/ha	, J	Cleavers (early-season control) Common chickweed (suppression)
Glyphosate	Herbicide- tolerant canola, Mustard (oilseed, brown, Oriental, yellow)	450 g ae/ha <sup>2</sup>		Barley, volunteer Foxtail, green Lady's thumb Mustard, wild Oats, wild Wheat, volunteer
		450 - 685 g ae/ha <sup>2</sup>		Weeds controlled by the 450 g ae/ha rate plus: Brome, downy Buckwheat, wild³ Darnel, Persian Flax, volunteer Fleabane, Canada (less than 8 cm in height) Foxtail, giant Hemp nettle Narrow-leaved hawk's beard⁴

Tank Mix Partner	Crop	Application Rate	Application Stage	Weeds Controlled/ Suppressed <sup>1</sup>
				Ragweed, common (less than 8 cm in height)
		810 g ae/ha²		Weeds controlled by the 450 – 685 g ae/ha rate plus: Bluegrass, annual Crab grass Narrow-leaved vetch Prickly lettuce Sowthistle, annual
		900 g ae/ha²		Weeds controlled by the 810 g ae/ha rate plus: Dandelion (less than 15 cm) Quackgrass (light to moderate infestations, 3-4 green leaves or more)

<sup>&</sup>lt;sup>1</sup>Suppression is a visual reduction in weed competition (reduced population and/or vigor) as compared to an untreated area. Competition by weeds listed as suppressed that remain in a crop will vary depending upon factors such as crop competition, weed biotype, the number of weed seeds in the soil and the time of weed emergence relative to crop emergence.

Temporary whitening and/or yellowing of the crop may occur when emerging from the treated soil. Susceptible weed species may emerge from the soil but are devoid of pigmentation and plant death occurs in a short period of time.

<sup>&</sup>lt;sup>2</sup>Weeds up to 15 cm in height are controlled by this rate unless otherwise specified

<sup>&</sup>lt;sup>3</sup>For wild buckwheat use 450 g ae/ha if less than 3 leaves or 685 g ae/ha if 3-4 leaf stage

<sup>&</sup>lt;sup>4</sup>For narrow-leaved hawk's-beard use 450 g ae/ha if less than 8cm in height or 685 g ae/ha if 8-15 cm

## **APPLICATION INFORMATION**

## **GENERAL APPLICATION INSTRUCTIONS**

#### **GROUND APPLICATION**

Use a boom and nozzle sprayer equipped with the appropriate nozzles, spray tips and screens adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Use nozzles that produce minimal amounts of fine spray droplets. Do not exceed 210 kPa spray pressure, unless otherwise required for optimal drift reduction nozzle performance. Apply in a minimum of 100 litres of spray volume per hectare. Use higher spray volumes when there is a dense weed population or dense crop canopy. Adjust sprayers to position spray tips no lower than 45 cm above the crop.

Use ground sprayers designed, calibrated and operated to deliver uniform spray droplets to the targeted plant or plant parts. Adjust sprayer nozzles to achieve uniform plant coverage. Overlaps and slower ground speeds (caused by continuing to spray while starting, stopping or turning) may result in higher application rates and possible crop response.

#### ADJUVANT USE REQUIREMENTS

A spray adjuvant product must be used in the spray solution with COMMAND® CHARGE B Herbicide for optimum performance, when used alone. Refer to the specific crop use section of this label for adjuvant choices and use rates.

#### **SPRAY DRIFT MANAGEMENT**

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target movement from applications to agricultural field crops.

## **Information on Droplet Size**

The most effective way to reduce drift potential is to apply large droplets. The optimum drift management strategy is to apply the largest droplets that provide sufficient coverage and performance. Applying larger droplets reduces drift potential but will not prevent drift when applications are made improperly, or under unfavourable environmental conditions. (See Wind, Temperature and Humidity, and Temperature Inversions.)

## **Controlling Spray Droplet Size**

**VMD –** VMD is the expression of the droplet size of the spray cloud. The VMD value means that 50% of the droplets are larger than the expressed value and 50% of the droplets are smaller than the expressed value. Optimum COMMAND® CHARGE B Herbicide spray clouds should be 450 microns with fewer than 10% of the droplets being 200 microns or smaller.

**Volume –** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows usually produce larger droplets.

**Pressure** – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

**Number of Nozzles –** Use the minimum number of nozzles that provide uniform coverage.

**Nozzle Type –** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low drift nozzles.

**Application Height –** Making applications at the lowest height that is safe reduces exposure of spray droplets to evaporation and wind movement.

**Wind –** Drift potential is lowest between winds speeds of 5 to 16 km/h. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Applications shall be avoided below 5 km/h due to variable wind direction and high inversion potential.

Do not apply COMMAND® CHARGE B Herbicide when wind speed exceeds 16 km/h. NOTE: Local terrain can influence wind patterns. Every applicator shall be familiar with local wind patterns and how they affect spray drift.

**Temperature and Humidity –** When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

**Temperature Inversions –** Do not apply COMMAND® CHARGE B Herbicide during a temperature inversion because the drift potential is high. Temperature inversions restrict vertical air mixing, which causes small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the following morning. Their presence can be indicated by ground fog. However, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

**Sensitive Areas –** Apply COMMAND® CHARGE B Herbicide only when direction of air flow is away from nearby sensitive areas (e.g., residential areas, bodies of water, known habitats for threatened or endangered species and non-target crops).

<u>Field sprayer application</u>: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) medium classification. Boom height must be 60 cm or less above the crop or ground.

DO NOT apply by air.

#### **SPRAY BUFFER ZONES**

A spray buffer zone is NOT required for:

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

Cron	Method of	Spray Buffer Zones (metres) Required for the Protection of:			
Crop	Application	Freshwater Habitat of Depths:		Terrestrial	
		Less than 1 m	Greater than 1 m	Habitat:	
Canola, mustard	Field sprayer	1	0	2	

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.

## **CROP ROTATION RESTRICTIONS**

Following an application of COMMAND® CHARGE B Herbicide, a treated field may be rotated at any time to crops listed on this label as well as the following crop groups: legume vegetables (succulent or dried), fruiting vegetables (except cucurbits), cucurbit vegetables (transplanted only), cereal grains and oilseeds. All other crops may be planted after 12 months.

## MIXING AND LOADING INSTRUCTIONS

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Follow the spray tank clean-out procedures specified on the label of the product previously applied before adding COMMAND® CHARGE B Herbicide to the spray tank.

For best results, fill the spray tank with one half the volume of clean water needed for the area to be treated. Make sure the agitation system is operating while adding products. Slowly add the required amount of COMMAND® CHARGE B Herbicide to the spray tank. Carefully rinse the container, adding the rinsings to the spray tank. Complete filling the spray tank to the desired level. Spray tank agitation should be sufficient to ensure uniform spray mixture during application and must continue until the spray tank has been emptied.

**Tank Mixtures:** Fill spray tank one-half to two-thirds full of water. With agitator operating add the recommended amount of ingredients using the following order:

- **W**ettable powders and dispersible granules
- Agitate tank mix thoroughly
- Micro-encapsulated suspensions
- Liquid flowables and suspensions
- Emulsifiable concentrate formulations
  - o Fill spray tank nearly full of water
- **Glyphosate formulations**
- Surfactants
  - Complete filling the spray tank to the desired level

If sprayer has been stored or idle, purge the spray boom and nozzles with clean water before charging sprayer with products to be applied.

Avoid the overnight storage of COMMAND® CHARGE B Herbicide spray mixtures.

Premixing COMMAND® CHARGE B Herbicide spray solutions in nurse tanks is not recommended.

Maintain continuous and adequate spray solution agitation until all the spray solution has been used.

Do not use with tank additives that alter the pH of the spray solution.

#### **SPRAYER CLEANUP**

Many herbicide products are very active at low rates, especially to sensitive crops. Residues left in mixing equipment, spray tanks, hoses, spray booms and nozzles can cause crop effects if such equipment is not properly cleaned between uses.

As soon as possible after spraying COMMAND® CHARGE B Herbicide and before using the sprayer equipment for any other applications, the sprayer equipment must be thoroughly cleaned using the following procedure. In addition, users must take appropriate steps to ensure proper equipment clean-out for any other products mixed with COMMAND® CHARGE B Herbicide, as directed on the companion product labels. Maximum cleaning can be achieved by cleaning the spray system immediately following use.

- Drain sprayer tank, hoses, spray boom and spray nozzles. Use a high-pressure detergent
  wash to remove physical sediment and residues from the inside of the sprayer tank and
  thoroughly rinse. Then, thoroughly flush sprayer hoses, spray boom and spray nozzles
  with a clean water rinse.
- 2. Next, prepare a sprayer cleaning solution by adding 3 litres of ammonia (containing at least 3% active) per 100 litres of clean water. Prepare sufficient cleaning solution to allow

the operation of the spray system for a minimum of 15 minutes to thoroughly flush the tank, hoses, spray boom and spray nozzles.

- 3. If possible, leave the ammonia solution or fresh water left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage to dissolve and dilute any remaining traces of herbicide.
- 4. Before using the sprayer, completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles with clean water.
- 5. Remove and clean spray tips and all filters and screens separately in an ammonia solution prepared as in Step 2, above. Replace these parts right after cleaning and rinsing.
- 6. Properly dispose of all cleaning solution and rinsate in accordance with established regulations and guidelines. Do not apply sprayer cleaning solutions or rinsate to sensitive crops.

Do not store the sprayer overnight or for any extended period of time with COMMAND® CHARGE B Herbicide spray solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers.

Small quantities of COMMAND® CHARGE B Herbicide remaining in improperly cleaned mixing, loading and/or spray equipment may be released during subsequent applications, potentially causing crop effects.

## **RESISTANCE-MANAGEMENT RECOMMENDATIONS**

For resistance management, COMMAND® CHARGE B Herbicide is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to COMMAND® CHARGE B Herbicide and other Group 14 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance:

- Where possible, rotate the use of COMMAND® CHARGE B Herbicide or other Group 14
  herbicides within a growing season (sequence) or among growing seasons with different
  herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted. To delay resistance, the less resistance-prone partner should control the target weed(s) as effectively as the more resistance-prone partner.
- Herbicide use should be based on an integrated weed management program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical control methods), cultural (for example, higher crop seeding rates; precision fertilizer application method and timing to favour the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.

- Monitor weed populations after herbicide application for signs of resistance development (for example, only one weed species on the herbicide label not controlled). If resistance is suspected, prevent weed seed production in the affected area, if possible, by an alternative herbicide from a different group. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields and planting clean seed.
- Have suspected resistant weed seeds tested by a qualified laboratory to confirm resistance and identify alternative herbicide options.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact FMC of Canada Limited representatives at <a href="https://ag.fmc.com/ca/en">https://ag.fmc.com/ca/en</a>.

COMMAND® is a trademark of FMC Corporation or an affiliate Merge® is a trademark of BASF Canada Inc.