HERBICIDE

# **POAST® ULTRA** Liquid Emulsifiable Herbicide

# EMULSIFIABLE CONCENTRATE

For post-emergence control of grasses in certain broadleaf crops

COMMERCIAL (AGRICULTURAL)

REGISTRATION NO.: 24835 PEST CONTROL PRODUCTS ACT

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



**NET CONTENTS:** 1 L – 100 L

# READ THE LABEL AND ATTACHED BOOKLET 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. Do not take internally.
- 3. May cause irritation of eyes and skin. Avoid inhalation of vapour or spray mist and contact with eyes, skin or clothing.
- 4. Wash thoroughly after handling and before eating, drinking or smoking or going to the washroom. Take a shower immediately after work.
- 5. During spraying or application, clean-up and repair, wear protective equipment and clothing, including hat, long sleeved shirt, trousers and rubber boots. Wear goggles or face shield and chemical resistant gloves.
- 6. If clothing becomes contaminated, remove immediately and wash. Store and wash all protective clothing separately from household laundry. Wash in detergent and hot water before reuse. Wear freshly laundered clothes daily.
- 7. Do not contaminate domestic or irrigation water, lakes, streams or ponds by the cleaning of equipment or the disposal of wastes.
- 8. Do not apply where run-off or erosion is likely to occur.
- 9. DO NOT apply this product in a way that will cause this product to contact workers or other persons, either directly or through drift. Only handlers (mixers, loaders and applicators) wearing personal protective equipment may be in the area being treated during application.
- 10. DO NOT enter or allow entry into treated areas during the restricted-entry interval (REI) of 12 hours.
- 11. Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

# ENVIRONMENTAL HAZARDS

- 1. TOXIC to aquatic organisms and non-target terrestrial plants. Observe buffer zones specified under DIRECTION FOR USE.
- 2. This product contains a petroleum distillate that is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during applications.
- 3. DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), estuaries or marine habitats.
- 4. DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.
- 5. 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, poorly draining soil (e.g. soils that are compacted or fine textured such as clay).

- 6. Avoid application of this product when heavy rain is forecast.
- 7. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

# FIRST AID

**If swallowed:** Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. 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.

# **<u>NOTE</u>**: If tank mixing, refer to individual product labels for additional first aid instructions.

# TOXICOLOGICAL INFORMATION

This product contains petroleum distillates. Vomiting may cause aspiration pneumonia. Treat symptomatically.

# STORAGE

- 1. Store in original, tightly-closed container and do not allow water to be introduced into this container.
- 2. Do not ship or store near food, feed, seed or fertilizers.
- 3. Store in a cool, dry, locked, well-ventilated area without floor drain.
- 4. Herbicides should be shipped or stored separately from other pesticides to avoid crosscontamination.

# DISPOSAL

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

- 1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2. Make the empty, rinsed container unsuitable for any further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

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

# NOTICE TO USER

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

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# EMULSIFIABLE CONCENTRATE

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COMMERCIAL (AGRICULTURAL)

ACTIVE INGREDIENT: Sethoxydim...... 450 g/L

**REGISTRATION NO.: 24835** 

PEST CONTROL PRODUCTS ACT

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CAUTION V POISON CAUTION – SKIN IRRITANT CAUTION – EYE IRRITANT

**NET CONTENTS:** 1 L – 100 L

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#### **GENERAL INFORMATION**

Poast Ultra liquid emulsifiable herbicide is a liquid emulsifiable concentrate herbicide for postemergence control of annual grasses, wild oats, volunteer cereals and guackgrass in asparagus, beans (including adzuki, dry common, faba, lima, mung and snap common), lowbush and highbush blueberries, borage, broccoli, buckwheat, Brussels sprouts, cabbage, caneberry, canola (rapeseed including glufosinate tolerant, imazethapyr and imazamox tolerant [e.g. canola varieties with the **Clearfield®** trait] and triazine tolerant varieties), caraway, carrots, cauliflower, celery, chickpeas, chicory (Chicorium intybus species only), coriander, cranberries, creeping red fescue<sup>1</sup>, cucumbers<sup>2</sup>, dill, ethnic cole crops (Chinese broccoli, Chinese radish, napa cabbage, kohlrabi, mustard cabbage), fenugreek, flax including low linolenic acid varieties, forage legumes for seed and forage (seedling and established: alfalfa, alsike clover, cicer milkvetch, sainfoin, and sweet clover), garden beets, garlic, grape vines, hops, lentils, lettuce (direct seeded and transplanted - head, leaf and romaine), mint crops (spearmint and peppermint), mustard, onions (dry bulb), Valencia peanuts (Ontario only), peas (dry and fresh processing<sup>3</sup>), peppers (field and green), potatoes, pumpkins, raspberries, safflower, soybeans, spinach, squash, strawberries, sugar beets, snow peas, sunflowers, sweet potato, tomatoes, turnips, trees and shrubs, bearing fruit trees (apple, apricot, sweet and sour cherry, peach, pear and plum), non-bearing fruit trees (apple, peach and plum), recently planted (non-bearing) orchards and shelterbelts of choke cherry and chickling vetch, new and established plantings of *Populus* species (poplar and aspens) and their hybrids, including short rotation intensive culture (SRIC) Populus crops, seedlings and rooted cuttings. (Refer to crop recommendations table for maximum rate permitted on crops).

**Poast Ultra** liquid emulsifiable herbicide does not control sedges or broadleaf weeds. This product does not provide residual weed control.

**Poast Ultra** liquid emulsifiable herbicide is a contact and a systemic herbicide. Uptake into the plant is primarily through its leaves. Thorough coverage of the foliage is important for consistent grass control. Once treated, susceptible grasses that were actively growing prior to treatment **stop growing** and undergo a burn-back and colour change first to a yellowish, then purplish and finally a brown colour. The time required for complete control is normally 7 to 21 days following treatment, depending on growing conditions and crop competition.

Control of quackgrass develops more slowly than control of annual grasses. **Poast Ultra** liquid emulsifiable herbicide is translocated through the quackgrass plant to the rhizomes and kills actively growing rhizome buds, as well as above ground vegetation. Dormant rhizome buds will remain unaffected by the spray and regrowth can occur from these buds. When **Poast Ultra** liquid emulsifiable herbicide is applied according to label directions, the regrowth of the quack grass will not be significant until 6-8 weeks after treatment, depending on growing conditions, crop cultivation practices and crop competition.

<sup>&</sup>lt;sup>1</sup> For seed production only.

<sup>&</sup>lt;sup>2</sup> Not for use in greenhouse cucumbers.

<sup>&</sup>lt;sup>3</sup> Do not use this product on fresh edible pod peas.

#### DIRECTIONS FOR USE

Select one of the following treatments for control of grass species as listed below. **Merge®** Adjuvant must be added to all applications of **Poast Ultra** liquid emulsifiable herbicide, including tank mixtures with broadleaf herbicides. Refer to Crop Recommendations table for maximum rate permitted on crops, especially buckwheat, snap common beans, herbs, low linolenic acid flax varieties and seedling forage legumes (except seedling alfalfa).

A plantback interval of 30 days is required for all crops other than those listed on the **Poast Ultra** liquid emulsifiable herbicide label.

#### **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 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) medium classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length **MUST NOT** exceed 65% of the wing- or rotorspan.

#### **Buffer Zones**

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment.

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

Mathadat			Buffer Zones (metres) Required for the Protection of:			
Method of Application	Сгор		Freshwater Ha	Terrestrial		
Application			Less than 1 m	Greater than 1 m	Habitats	
Field sprayer*	All crops		1	0	2	
Aerial	Food/feed crops	Fixed wing	1	0	70	
		Rotary wing	1	0	60	
	arah arda	Fixed wing	5	0	150	
		Rotary wing	1	0	85	

\* 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, 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, the labelled buffer zone can be reduced by 30%.

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

#### Annual Grass Control

Most effective control is achieved when application is made at the 2 to 5 leaf stage when annual grasses are small and actively growing, soil moisture is good, and the crop is small enough to permit thorough spray coverage.

In wide row crops (25 cm or more in width) such as soybeans, potatoes, and sugar beets, where the crop canopy may be slow to close, cultivation may be necessary to control annual grasses that emerge after treatment.

#### Wild oat and volunteer cereal control

Controlled at the 1-4 leaf stage in canola, flax (including low linolenic acid varieties) and peas only.

Most effective if applied prior to tillering. This treatment is ideally suited as a follow up to a soil incorporated treatment such as Trifluralin® or Edge® where weeds are at a small size and/or conditions at application are ideal (see below).

**Poast Ultra** liquid emulsifiable herbicide applied at 0.32 L/ha for the control of wild oats and volunteer cereals should only be applied under the following conditions:

- adequate moisture
- adequate fertility
- moderate temperatures 15°C to 28°C
- absence of stress
- canola, flax including low linolenic acid varieties and peas only (good crop stand is essential)
- early timing (1-4 true leaf stage of volunteer cereals and wild oats)
- light to moderate weed infestation levels
- low water volumes (50-100 L/ha)

Use the 0.47 L/ha rate of **Poast Ultra** liquid emulsifiable herbicide if any one of the above mentioned conditions are not present at the time of application.

#### **Quackgrass Control**

Apply when quackgrass is actively growing up to the 3 leaf stage (8 to 12 cm in height). Use only on cultivated land where preplant tillage operations have been carried out to thoroughly fragment quackgrass roots. Where well established quackgrass exists, thorough preplant cultivation to a depth of 10 cm is recommended to fragment quackgrass roots and provide uniform grass emergence for improved control. Depending on growing conditions and crop cultivation system, season-long control of quackgrass may not always be obtained. Competition of quackgrass is normally eliminated for at least 6 to 8 weeks. A cultivation no sooner than 7 days after treatment is recommended for wide row crops as an aid in providing control. Where poor soil fertility (i.e., low nitrogen) exists, quackgrass control may not be satisfactory.

#### **Foxtail Barley Suppression**

Apply **Poast Ultra** liquid emulsifiable herbicide for suppression of foxtail barley before foxtail barley has tillered.

# Poast Ultra liquid emulsifiable herbicide - Merge Adjuvant Application Rates for Weeds Controlled

GRASS SPECIES	GRASS LEAF STAGE	POAST ULTRA* LIQUID EMULSI- FIABLE HERBICIDE RATE (L/ha)	Merge Adjuvant** Rate (by water volume) (L/ha) Aerial	Merge Ac Ra (by water (L/t	te volume) na)
			25-50	50-100	100-200
Annual Grasses**: Barnyard grass, crabgrass (large), fall panicum, foxtail (green/yellow; wild millet), persian darnel, proso millet, volunteer corn, witchgrass.	1-6	0.32	0.25-0.50	0.50-1.0	1.0
Wild Oats and Volunteer Cereals:*** Wild oats, volunteer barley, volunteer wheat	1-4	0.32	0.25-0.50	0.50-1.0	1.0
Annual Grasses: Barnyard grass, crabgrass (large), fall panicum, foxtail (green/yellow; wild millet), persian darnel, proso millet, volunteer corn, witchgrass.	1-6	0.47	0.25-0.50	0.50-1.0	1.0
Wild Oats and Volunteer Cereals:*** Wild oats, volunteer barley, volunteer wheat	1-6	0.47	0.25-0.50	0.50-1.0	1.0
Quackgrass Suppression: (Western Canada only)	2-5	0.47	0.25-0.50	0.50-1.0	1.0
Quackgrass Control plus annual grasses listed above	1 to 3	1.1	NA	NA	1.0-2.0
Foxtail Barley Suppression plus annual grasses listed above	1-4	1.1	NA	NA	1.0-2.0

\* For band application, adjust rate per hectare in relation to the band width (annual grasses only). **Merge** Adjuvant should be added at a rate of at least 1% of the water volume used.

\*\* EASTERN CANADA ONLY. Assist® Oil Concentrate can be substituted for Merge Adjuvant (at same rates) for the control of annual grasses listed for the low Poast Ultra liquid emulsifiable herbicide rate.

\*\*\* In canola, flax (low linolenic acid varieties) and peas only.

# **Crop Recommendations**

Сгор	Maximum Application Rate (L/ha)	Pre-harvest Interval (days)
Asparagus	1.1	40
Beans – snap common	0.65	15
Beans – all dry common (See Note)	1.1	80
Beans – adzuki, faba, lima, mung	1.1	80
Beans – otebo (Ontario only)	1.1	80
Lupins (dry for grain) <sup>1</sup> – grain, sweet, white, white sweet	1.1	80
Blueberry (lowbush)	1.1	15
Blueberry (highbush) <sup>2</sup>	1.1	1
Borage	0.32	70
Broccoli	0.45	70
Brussels sprouts <sup>4</sup>	1.1	70
Buckwheat	0.57	85
Cabbage	1.1	70
Canola (refer to tank mix section)	1.1	70
Canola – imazethapyr and imazamox tolerant (e.g. canola varieties with the <b>Clearfield</b> trait)	1.1	70
Canola – glufosinate tolerant varieties	1.1	70
Canola – triazine tolerant varieties	1.1	70
Caraway (Western Canada only)	0.65	NA
Carrot	1.1	49
Cauliflower	1.1	70
Celery <sup>4</sup>	1.1	30
Chickpea	0.47	65
Chicory ( <i>Chicorium intybus</i> species only) <sup>3</sup>	1.1	60
Chickling vetch	1.1	70
Coriander (Western Canada only)	0.65	NA
Creeping Red Fescue (for seed production only)	1.1	NA
Cranberry	1.1	60
Cucumbers (not for greenhouse cucumbers)	1.1	30
Dill (Western Canada only)	0.65	NA
Ethnic cole crops <sup>4</sup> (Chinese broccoli, Chinese radish, napa cabbage, kohlrabi, mustard cabbage)	1.1	30
Fenugreek <sup>1</sup>	1.1	60
Flax (refer to tank mix section)	1.1	60
Flax – low linolenic acid varieties (refer to tank mix section)	0.65	86
Garden beets <sup>5</sup>	1.1	49
Garlic	1.1	50
Grape vines (bearing plantings, and non-bearing 1 <sup>st</sup> and 2 <sup>nd</sup> year plantings) <sup>1, 8</sup>	1.1	30
Hops	1.1	180
Lentils	1.1	65
Mint crops – spearmint and peppermint	0.65	NA
Mustard, including yellow and oriental (condiment and oilseed types)	1.1	76
Onion – dry bulb	1.1	50
Valencia peanuts (Ontario only) <sup>1</sup>	0.34	40
Peas – fresh processing (not fresh edible pea pods)	1.1	30
Peas – dry	1.1	60
Peppers – field <sup>4</sup>	1.1	30
Peppers – green	1.1	30
Potatoes	1.1	80
Potatoes (sweet)	1.1	30
Pumpkin	1.1	30
Raspberry	1.1	30

Сгор	Maximum Application Rate (L/ha)	Pre-harvest Interval (days)	
Safflower	0.65	90	
Snow peas <sup>1</sup>	0.32	30	
Soybeans	1.1	80	
Spinach <sup>4</sup>	1.1	15	
Squash	1.1	30	
Sugar beets	1.1	85	
Strawberry	1.1	25	
Sunflowers	1.1	105	
Tomatoes	1.1	60	
Turnip	1.1	77	
Trees and Shrubs – White spruce, Colorado spruce, Scotts pine, Douglas fir, Caragana, Cedar, Juniper, Green ash, Lilac, Saskatoon, Buffaloberry, Sea-buckthorn, Potentilla, Spirea, Maple, Walnut	1.1	NA	
<i>Populus</i> Species – New and established plantings of <i>Populus</i> species (poplar and aspens) and their hybrids, including short rotation intensive culture (SRIC) <i>Populus</i> crops, seedlings and rooted cuttings	1.1	N/A	
Bearing Fruit Trees <sup>6</sup> – apple, apricot, sweet and sour cherry, peach, pear, plum	1.1	30	
Non-Bearing Fruit Trees – apple, peach, plum	1.1	NA	
Non-bearing orchards and shelterbelts of choke cherry <sup>7</sup>	1.1	NA	
Forage Legumes for Seed and Forage			
Alfalfa – seedling	1.1	70	
– established	1.1	70	
Alsike clover – seedling (Western Canada only)	0.65	30	
<ul> <li>– established (Western Canada only)</li> </ul>	1.1	30	
Cicer milkvetch – seedling (Western Canada only)	0.65	30	
- established (Western Canada only)	1.1	30	
Sainfoin – seedling (Western Canada only)	0.65	30	
- established (Western Canada only)	1.1	30	
Sweet clover - seedling (Western Canada only)	0.65	30	
<ul> <li>– established (Western Canada only)</li> </ul>	1.1	30	

<sup>1</sup> Single post-emergent application; ground application only.

<sup>2</sup> Up to 2 applications per year not exceeding a total maximum application rate of 1.1 L/ha per season. Apply **Poast Ultra** as a broadcast application to the ground on each side of the highbush blueberry row. Allow a minimum of 14 days between applications.

<sup>3</sup> Chicory (*Chicorium intybus* species only). Treated chicory root is not to be used for endive production.

<sup>4</sup> One application per year.

<sup>5</sup> Up to 2 applications per year not exceeding a total maximum application rate of 1.1 L/ha per season.

<sup>6</sup> Apply by ground application, banded under trees. Use **Merge** Adjuvant at 1% v/v in 100-200 L water/ha.

<sup>7</sup> Apply once per growing season by ground as a directed spray.

<sup>8</sup> Apply as a banded application directed to the base of the grape vine.

#### NOTE:

Dry common bean varieties may vary in their tolerance to herbicides, including to **Poast Ultra** liquid emulsifiable herbicide. Since not all dry common bean varieties have been tested for tolerance to **Poast Ultra** liquid emulsifiable herbicide, first use of **Poast Ultra** liquid emulsifiable herbicide should be limited to a small area of each variety to confirm tolerance prior to adoption as a general field practice. Additionally, consult your seed supplier for information on tolerance of specific varieties of dry common beans to **Poast Ultra** liquid emulsifiable herbicide.

Сгор	Maximum Application Rate (L/ha)	Pre-harvest Interval (days)
<b>Bushberry Subgroup (Crop Subgroup 13-07B)</b> <sup>9</sup> Aronia berry; blueberry, highbush <sup>10</sup> ; blueberry, lowbush; buffalo currant; Chilean guava; cranberry, highbush; currant, black; currant, red; elderberry; European barberry; gooseberry; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); lingonberry; native currant; salal; sea buckthorn; cultivars, varieties, and/or hybrids of these.	0.32 <b>OR</b> 0.47 <b>OR</b> 1.1	15
<b>Caneberry Subgroup (Crop Subgroup 13-07A)</b> <sup>9,11</sup> Blackberry (including Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, brombeere, California blackberry, Chesterberry, Cherokee blackberry, Cheyenne blackberry, common blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, evergreen blackberry, Himalayaberry, hullberry, lavacaberry, loganberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, mora, mures deronce, nectarberry, Northern dewberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tayberry, youngberry, zarzamora, and cultivars, varieties and/or hybrids of these); raspberry, black and red; wild raspberry; cultivars, varieties and/or hybrids of these.	1.1	37

<sup>9</sup> Bushberry and caneberry species and varieties within a species may vary in their tolerance to herbicides, including Poast Ultra liquid emulsifiable herbicide. Since not all bushberry and caneberry species and varieties have been tested for tolerance to Poast Ultra liquid emulsifiable herbicide, first use of Poast Ultra liquid emulsifiable herbicide should be limited to a small area of each species or variety to confirm tolerance prior to adoption as a general field practice. Additionally, consult your plant supplier for information on the tolerance of specific species and varieties of bushberries and caneberry to Poast Ultra liquid emulsifiable herbicide.

Use Merge Adjuvant at 0.5 – 2.0 L/ha or Assist Oil Concentrate at 0.5 – 2.0 L/ha.

DO NOT APPLY BY AIR.

<sup>10</sup> For highbush blueberries only, the pre-harvest interval is 1 day. Up to 2 applications per year not exceeding a total maximum application rate of 1.1 L/ha per season. Apply Poast Ultra as a broadcast application to the ground on each side of the highbush blueberry row. Allow a minimum of 14 days between applications.

<sup>11</sup> Apply as a directed spray application to the base of the caneberry. Use ground equipment only.

Сгор	Maximum Application Rate (L/ha)	Pre-harvest Interval (days)
Lettuce <sup>12</sup>		
(Direct seeded and transplanted – head, leaf and romaine)	0.32 - 1.1	30 (head) 15 (leaf and romaine)
Transplanted lettuce		,
- 1 application per year		
<ul> <li>Application timing between 1 to 6 leaf stage</li> </ul>		
Direct seeded lettuce		
<ul> <li>Up to 2 application per year</li> </ul>		
<ul> <li>1<sup>st</sup> application between 1 to 6 leaf stage</li> </ul>		
<ul> <li>2<sup>nd</sup> application 14 to 21 days after thinning</li> </ul>		
<ul> <li>Not to exceed a total maximum application rate of 1.1 L/ha</li> </ul>		

# MIXING

#### Poast Ultra liquid emulsifiable herbicide Alone

- 1. When using **Poast Ultra** liquid emulsifiable herbicide, always start with a clean sprayer. Thoroughly clean the sprayer by flushing the system with water containing detergent. Refer to previously applied product labels for specific cleaning instructions.
- 2. Fill clean spray tank half full with clean water. Start agitation system.
- 3. Add the correct amount of **Poast Ultra** liquid emulsifiable herbicide. Continue to agitate.
- 4. Add the correct amount of **Merge** Adjuvant along with the remaining amount of water necessary to fill the spray tank.
- 5. Continue to agitate or run the by-pass system.
- 6. After any break in 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 over night.
- 7. If an oil film starts to build up in the tank, drain it and clean the tank with strong detergent solution.
- 8. Immediately after use, thoroughly clean the sprayer by flushing the system with clean water containing detergent.

For disposal of cleaning solution, see section on **DISPOSAL**.

# TANK MIX COMBINATIONS

**Poast Ultra** liquid emulsifiable herbicide can be mixed with the following herbicides for broadleaf weed control (refer to instructions on **Mixing - Poast Ultra Liquid Emulsifiable Herbicide Tank Mixes**). Use **Merge** Adjuvant only with all tank mixes.

Do not delay spraying broadleaf weeds if grassy weeds are not in the correct stage for treatment. If annual grass weeds and broadleaf weeds are not in the correct stages for treatment, apply separate applications of each herbicide timed to control the required species.

Allow 4 days between application of **Poast Ultra** liquid emulsifiable herbicide and any other chemical not recommended as a tank mix combination on this label. Products registered as a tank mix with **Poast Ultra** liquid emulsifiable herbicide can be applied immediately prior to or following the application of **Poast Ultra** liquid emulsifiable herbicide.

Apply **Poast Ultra** liquid emulsifiable herbicide at 0.32-0.47 L/ha with the addition of **Merge** Adjuvant at 0.75-1.0 L/ha with the following broadleaf compounds for broad spectrum weed control in the following crops. Refer to the specific partner label for broadleaf weeds controlled and rates.

# Always refer to the broadleaf herbicide label for precautions, use instructions and crop rotation restrictions.

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

# Rate Applications for Poast Ultra liquid emulsifiable herbicide + Merge Adjuvant Tank Mixes – Annual Grasses Only

Сгор	Poast Ultra Liquid Emulsifiable Herbicide Rate (L/ha)	Tank Mix Partner	Tank Mix Partner Rate (L/ha)	Comments
Flax (including low linolenic acid varieties)	0.32-0.47	Buctril M Logic M Lontrel 360 Lontrel® 360 + MCPA Ester OR MCPA Ester	Refer to Respective Labels	Some leaf burn and retarded growth may delay crop maturity. Some reduced grass control may be experienced with the above broadleaf tank mixtures. Avoid application under humid and especially hot humid conditions. Caution should be taken to avoid non- uniform applications, e.g., overlapping. Do not apply tank mixtures during flowering.
Canola (rapeseed)	0.32	Muster + Lontrel 360	20 g/ha + 0.42	For control of grasses and broadleaf weeds in canola (rapeseed). Refer to the specific partner labels for broadleaf weeds controlled at these rates. Always refer to the broadleaf herbicide label for precautions, use instructions and crop rotational instructions. When preparing this tank-mix, first add the required amount of <b>Muster</b> to the tank or container (see mixing instructions) of clean water such that a slurry is formed. Once the <b>Muster</b> is in suspension, add the required amount of <b>Lontrel 360</b> followed by <b>Poast Ultra liquid emulsifiable herbicide</b> and then <b>Merge</b> Adjuvant. The use of other adjuvants is not required.
	0.32-0.47	Lontrel 360 + Muster	0.42 + 20 g/ha	Refer to <b>Lontrel 360</b> and <b>Muster</b> labels for precautions, use instructions and crop rotational instructions. See mixing instructions on this label.
	0.32-0.47	Lontrel 360	0.42-0.83	For control of grasses and Canada thistle, wild buckwheat, perennial sow-thistle (top growth suppression), and scentless chamomile. Refer to <b>Lontrel 360</b> label for use instructions.
	0.32-0.47	Muster	20 or 30 g/ha	For control of grasses and broadleaf weeds. Consult the <b>Muster</b> label for restrictions and desired use rates. When preparing the combination, first add the required amount of <b>Muster</b> to the tank or container of clean water such that a slurry is formed. Once the <b>Muster</b> is in suspension, add the required amount of <b>Poast Ultra</b> liguid emulsifiable herbicide, followed by the correct amount of <b>Merge</b> Adjuvant. Additional surfactant is not required. For best results, follow the timing restrictions and specific weed control recommendations stated on each label. Refer to <b>Muster</b> label for use instructions.
Dry Peas	0.47	Pursuit 240	0.10	For control of chickweed, cleavers, hemp-nettle, redroot pigweed*, smartweed, stinkweed, volunteer canola, wild buckwheat* and wild mustard. Use <b>Merge</b> Adjuvant at 1.0 L/ha. Refer to <b>Pursuit 240</b> label for recropping and soil zone** restrictions. See mixing instructions on this label.
	0.47	Pursuit 240	0.21	For the control of the above weeds plus shepherds purse and partial control of lamb's-quarters. Use <b>Merge</b> Adjuvant at 1.0L/ha. Refer to <b>Pursuit 240</b> label for recropping and soil zone** restrictions. See mixing instructions on this label.
Glufosinate Tolerant Canola (e.g. canola varieties with the <b>LibertyLink</b> ® symbol)	0.22	Liberty 150 SN Herbicide	2.67	For control of wild mustard, smartweed, lamb's-quarters, perennial sow-thistle, common chickweed, redroot pigweed, and volunteer barley. Use <b>Merge</b> Adjuvant at 1.0 L/ha. Refer to <b>Liberty 150 SN</b> Herbicide label for use instructions.

For heavy infestations, use the 0.21 L/ha rate of Pursuit 240 herbicide.
 \*\* Pursuit 240 is registered for use in black and grey wooded soils ONLY.

# MIXING

# Poast Ultra Liquid Emulsifiable Herbicide Tank Mix Combinations

- 1. When using **Poast Ultra** liquid emulsifiable herbicide, always start with a clean sprayer. Thoroughly clean the sprayer by flushing the system with water containing detergent. Refer to previously applied product labels for specific cleaning instructions.
- 2. Fill clean spray tank half full with clean water. Start agitation system.
- 3. Add to tank, if required (refer to instructions on tank mixtures) **Muster** herbicide. Agitate for 2 to 3 minutes.

**Note:** Always add **Muster** to clean water. When refilling the tank for repeated spray applications, add **Muster** to a small container of clean water, mix well to form a slurry, then add to the spray tank.

- 4. Add the correct amount of **Poast Ultra** liquid emulsifiable herbicide. Continue to agitate.
- 5. If required, add recommended broadleaf herbicides such as **Pursuit 240**, **MCPA ester**, **Lontrel 360**, **Liberty**, **Buctril M** or **Logic M**.
- 6. Add the correct amount of **Merge** Adjuvant along with the remaining amount of water necessary to fill the spray tank.
- 7. Continue to agitate or run the by-pass system.
- 8. After any break in 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 over night. In the case of tank mixtures with broadleaf herbicides, settling will occur if agitation is not continuous.
- 9. If an oil film starts to build up in the tank, drain it and clean the tank with strong detergent solution.
- 10. Immediately after use, thoroughly clean the sprayer by flushing the system with clean water containing detergent.

For disposal of cleaning solution, see section on **DISPOSAL**.

# SPRAYING INSTRUCTIONS

#### Water volume and spray pressure Conventional ground application

Use sprayers equipped with standard flat nozzles. The use of 80°-110° stainless steel flat fan nozzle is recommended for optimum spray coverage with nozzles tilted 45° forward to ensure better coverage.

The use of flood jet or hollow cone nozzles is not recommended because of uneven and inadequate spray coverage. Ensure thorough and uniform spray coverage over the entire leaf area of the target weeds.

Thoroughly clean all screens to prevent nozzle clogging, especially when water volumes of 50 to 100 L/ha are used. In general, use water volumes of 50 to 100 L/ha, and a minimum of 240 kPa pressure. For applications to dense weed infestations or to dense crop canopies (for example, soybeans), use 100 to 200 L of water per hectare at pressures of 275 to 425 kPa. For quackgrass control use 100 to 200 L of water per hectare at pressures of 275 to 425 kPa.

#### Band applications

Adjust rate per hectare in relation to the band width. Where quackgrass is a problem, band applications are not recommended. Use only broadcast applications for best results.

#### Aerial applications

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.

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

#### Use Precautions

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under conditions of good practice specific to aerial application as outlined in the National Aerial Pesticide Application Manual, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

Do not apply to any body of water. Avoid drifting of spray onto any body of water or other nontarget areas. Specified buffer zones should be observed.

Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Do not apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

#### **Operator Precautions**

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.

The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

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.

# **Product Specific Precautions**

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-877-371-BASF (2273) or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

Volume: Apply the recommended rate in a minimum spray volume of 25 to 50 litres of water per hectare with pressure up to 200 kPa.

Treat when wind is 3 to 15 kilometres per hour. Do not spray in winds above 10 km/hour within 1/2 hour of sunrise or sunset.

#### **RESTRICTIONS AND LIMITATIONS**

- 1. Use only for crops listed on this label.
- 2. When grasses are stressed due to drought, flooding, hot or prolonged cool temperatures (15°C or less), control can be reduced or delayed since grasses are not actively growing. Grass escapes or retillering may occur under prolonged stress conditions or low fertility. Do not make applications to grasses stressed longer than 20 days due to lack of moisture, as unsatisfactory control can result.
- 3. If stress conditions exist at the time of application and have existed for less than 20 days, then use the higher recommended rates of **Poast Ultra** liquid emulsifiable herbicide as indicated on the 'Application Rates' table.
- 4. Thorough preplant tillage operations are required for fields where sod or forage grass crops may have grown in the previous year.
- 5. Rainfall within one hour of application may reduce the effectiveness of the spray. (Refer to respective broadleaf herbicide labels for rain-fast recommendations for tank mixtures).
- 6. Allow 4 days between application of **Poast Ultra** liquid emulsifiable herbicide and any other chemical not recommended as a tank mix combination on this label.
- 7. Allow a minimum of 14 days between application of **Poast Ultra** liquid emulsifiable herbicide plus **Merge** Adjuvant and replanting of cereal or grass crops. A cultivation to a minimum depth of 10 cm is recommended 7 days prior to seeding.
- 8. Do not graze the treated crop\* or cut for hay; sufficient data are not available to support such use.
- 9. In some cases, tank mixing a pest control product with another pest control product or a fertilizer can result in biological effects that could include, but are not limited to, reduced pest efficacy or increased host crop injury. The user should contact BASF at 1-877-371-2273 or www.agsolutions.ca for information before mixing any pesticide or fertilizer that is not specifically recommended on this label. The user assumes the risk of losses that result from the use of tank mixes that do not appear on this label or that are not specifically recommended by BASF.

\*Forage legumes indicated in the label may be cut for hay provided pre-harvest intervals are followed.

# WARNING

Injury to grass, cereal or corn crops and turf may occur if **Poast Ultra** liquid emulsifiable herbicide is applied directly onto, or is allowed to drift onto, these susceptible crops.

Do not apply when weather conditions may cause spray drift from treated fields to adjacent crops. Wash sprayer thoroughly after use to avoid damage to the next crop sprayed, especially if it is a cereal, forage or corn crop.

# ENVIRONMENTAL HAZARDS

- 1. TOXIC to aquatic organisms and non-target terrestrial plants. Observe buffer zones specified under DIRECTION FOR USE.
- 2. This product contains a petroleum distillate that is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during applications.
- 3. DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), estuaries or marine habitats.
- 4. DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.
- 5. 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, poorly draining soil (e.g. soils that are compacted or fine textured such as clay).
- 6. Avoid application of this product when heavy rain is forecast.
- 7. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

# **RESISTANCE-MANAGEMENT RECOMMENDATIONS**

For resistance management, **Poast Ultra** liquid emulsifiable herbicide is a Group 1 herbicide. Any weed population may contain or develop plants naturally resistant to **Poast Ultra** liquid emulsifiable herbicide and other Group 1 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 **Poast Ultra** liquid emulsifiable herbicide or other Group 1 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.

# PRECAUTIONS

#### 1. KEEP OUT OF REACH OF CHILDREN.

- 2. Do not take internally.
- 3. May cause irritation of eyes and skin. Avoid inhalation of vapour or spray mist and contact with eyes, skin or clothing.
- 4. Wash thoroughly after handling and before eating, drinking or smoking or going to the washroom. Take a shower immediately after work.
- 5. During spraying or application, clean-up and repair, wear protective equipment and clothing, including hat, long sleeved shirt, trousers and rubber boots. Wear goggles or face shield and chemical resistant gloves.
- 6. If clothing becomes contaminated, remove immediately and wash. Store and wash all protective clothing separately from household laundry. Wash in detergent and hot water before reuse. Wear freshly laundered clothes daily.
- 7. Do not contaminate domestic or irrigation water, lakes, streams or ponds by the cleaning of equipment or the disposal of wastes.
- 8. Do not apply where run-off or erosion is likely to occur.
- 9. DO NOT apply this product in a way that will cause this product to contact workers or other persons, either directly or through drift. Only handlers (mixers, loaders and applicators) wearing personal protective equipment may be in the area being treated during application.
- 10. DO NOT enter or allow entry into treated areas during the restricted-entry interval (REI) of 12 hours.
- 11. Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

# FIRST AID

**If swallowed:** Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. 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.

#### **<u>NOTE</u>**: If tank mixing, refer to individual product labels for additional first aid instructions.

#### TOXICOLOGICAL INFORMATION

This product contains petroleum distillates. Vomiting may cause aspiration pneumonia. Treat symptomatically.

# STORAGE

- 1. Store in original, tightly-closed container and do not allow water to be introduced into this container.
- 2. Do not ship or store near food, feed, seed or fertilizers.
- 3. Store in a cool, dry, locked, well-ventilated area without floor drain.
- 4. Herbicides should be shipped or stored separately from other pesticides to avoid crosscontamination.

#### DISPOSAL

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

- 1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2. Make the empty, rinsed container unsuitable for any further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

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

# NOTICE TO USER

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

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