

Container Label

GROUP

27

HERBICIDE

Certitude® A

HERBICIDE

SUSPENSION CONCENTRATE

COMMERCIAL (AGRICULTURAL)

ACTIVE INGREDIENT: Topramezone 336 g/L

Contains 1,2-benzisothiazolin-3-one at 0.0045% and 2-methyl-4-isothiazolin-3-one at 0.0045%,
as preservatives

Warning, contains the allergen soy

REGISTRATION NO. 33908

PEST CONTROL PRODUCTS ACT

READ THE LABEL AND ATTACHED BROCHURE 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: 0.1 L to 1000 L

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

CERTITUDE is a registered trade-mark of BASF SE, used with permission by
BASF Canada Inc.

PRECAUTIONS: Please refer to the booklet for the complete list of precautions.

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.

TOXICOLOGICAL INFORMATION

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

ENVIRONMENTAL PRECAUTIONS

This product contains an active ingredient and aromatic petroleum distillates which are toxic to aquatic organisms. TOXIC to non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.

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

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.

TOXIC to small wild mammals.

STORAGE

Store this product away from food or feed.

Protect from freezing. If this product has been stored where freezing temperatures have occurred, agitate or mix contents of container well before use.

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 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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PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

Avoid breathing spray or spray mist.

Avoid contact with skin, eyes, and clothing.

Harmful if swallowed.

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. In addition wear protective eyewear (face shield or goggles) while mixing and loading.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Do not apply directly to water or areas where surface water is present.

Do not contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

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.

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GENERAL INFORMATION

Certitude A is a systemic herbicide that provides post-emergence control of emerged weeds, including those that are glyphosate resistant, when applied as a pre-seed treatment to canola.

Certitude A is absorbed by leaves, roots, and shoots and translocated to the growing points of sensitive weeds to provide post-emergence control of emerged weeds. **Certitude A** controls weeds by inhibiting carotenoid biosynthesis (HPPD inhibitor). Temperatures and moisture conditions for active plant growth are important for optimum **Certitude A** activity.

DIRECTIONS FOR USE

Application Timing and Weeds Controlled

When tank-mixes are permitted, read and observe all label directions, including rates and restrictions for each product used in the tank-mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on both product labels.

Certitude A + Certitude B

Apply **Certitude A** as surface application prior to seeding canola (all types, including Liberty Link, Clearfield, Roundup Ready and conventional) when weeds are actively growing. Always apply in tank mix with **Certitude B** for control of volunteer canola (all types, including glyphosate resistant) and suppression of kochia (including glyphosate resistant biotypes).

Application should be made to emerged volunteer canola seedlings at the fully expanded cotyledon to the 6-leaf stage and to emerged kochia. Apply before seeding canola. Do not apply as a pre-emergence application.

Certitude A + Certitude B + Glyphosate

For broad spectrum weed control, **Certitude A** and **Certitude B** should be applied in combination with glyphosate as a pre-seed application to canola. **Certitude A** plus **Certitude B** will provide enhanced control of volunteer canola (all types, including glyphosate resistant) and kochia (including glyphosate resistant biotypes) over glyphosate applied alone. Refer to the glyphosate label for weeds controlled by glyphosate as a pre-seed application.

Certitude A is compatible with all liquid glyphosate formulations in which glyphosate is present as isopropylamine salt, di-ammonium salt or potassium salt. Use only glyphosate products registered for pre-seed application to canola.

Application Rates

Uniformly apply **Certitude A** as a broadcast spray by ground at rates indicated below in a water volume of 50 to 200 L/ha. Thorough spray coverage is required for optimum weed control.

Always apply **Certitude A** in tank mix with **Certitude B** and Merge Adjuvant at 0.5% v/v, i.e., 5 litres per 1000 L spray solution. For broad spectrum weed control, **Certitude A** and **Certitude B** should be applied in combination with glyphosate. Apply with Merge Adjuvant at 0.5% v/v, i.e., 5 litres per 1000 L spray solution.

| Certitude A (mL/ha) | Certitude B (mL/ha) | Glyphosate (g ae/ha) ¹ | Merge Adjuvant (% v/v) |
|--|-------------------------------|---|----------------------------------|
| 18 | 600 | 450 – 900 | 0.5 |
| Restrictions: Maximum 1 application per season. | | | |

¹ A rate of 450 - 900 g ae/ha is equivalent to 0.83 to 1.67 L/ha of Roundup WeatherMAX with Transorb 2 Technology Liquid Herbicide (540 g ae/L). Other glyphosate formulations may require a rate calculation adjustment according to active ingredient concentration. Refer to the glyphosate label for rate and weeds controlled.

Crop Harvest

There is no required preharvest interval between a pre-seed application of **Certitude A** and the harvest of canola. Grain and meal from treated canola can be fed to livestock. Do not graze or feed other portions of the treated canola to livestock.

Spraying Instructions

DO NOT apply using aerial application equipment.

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

Uniformly apply with properly calibrated ground equipment using a water volume of 50-200 L/ha. For applications to dense weed infestations and thick canopies, higher water volumes are recommended.

Certitude A may cause injury to desirable trees and plants. Do not apply when wind speeds exceed 8 km/h or when drift near desirable plants is possible. Leave an adequate buffer zone between spraying area and sensitive plants.

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.

Spray Buffer zones

A spray buffer zone is NOT required for uses with hand-held application equipment permitted on this label.

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).

| Method of application | Crop | Spray Buffer Zones (metres) Required for the Protection of Terrestrial Habitat |
|-----------------------|--------|--|
| Field sprayer | Canola | 2 |

For tank mixes, 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 drift 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 and Pest Management Regulatory Agency website.

Mixing Instructions

1. Fill clean spray tank half full with clean water. Start agitation system. Agitation should be running during the entire mixing procedure.
2. Add the correct amount of **Certitude A** and continue to agitate until thoroughly mixed.
3. After the **Certitude A** has visibly dispersed, add the required amount of **Certitude B**.
4. Add in **glyphosate** herbicide.
5. Add the correct amount of **Merge Adjuvant**.
6. Continue agitation while filling the remainder of the tank with water necessary to fill the spray tank.

Spray Equipment Cleaning

Follow these steps to clean the spray equipment:

1. Thoroughly hose down the inside and outside of equipment surfaces while filling the spray tank half-full with water. Flush by operating the sprayer until the system is purged of the rinse water.

2. Fill the tank with water, adding 1 L of household ammonia for every 100 L of water. Operate the spray pump to circulate the ammonia solution through the spray system for 15-20 minutes and discharge a small amount of the ammonia solution throughout the spray boom and nozzles. Let the solution stand for several hours, preferably overnight.
3. Flush the solution out of the spray tank through the boom.
4. Remove the nozzles and screens and flush the system with two tanks full of water.
5. Refer to the tank mix partner's product label for any additional cleaning instructions not included in the above steps.

Rotational Cropping

Fields treated with **Certitude A** can be seeded to winter wheat at a minimum four months after application and can be seeded to spring wheat, field corn, canola, lentils, navy (white) beans, soybeans, peas, potatoes and alfalfa the following year.

Conduct a field bioassay (a test strip grown to maturity) the year before growing any other crop.

Always refer to the tank mix partner's product label for any additional recropping restrictions.

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, **Certitude A** is a Group 27 herbicide. Any weed population may contain or develop plants naturally resistant to **Certitude A** and other Group 27 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 **Certitude A** or other Group 27 herbicides within a growing season 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 IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), 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 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.

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