Container

GROUP	2	HERBICIDE
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MIZUNATM

Water Dispersible Granular Herbicide in water-soluble bags

AGRICULTURAL

FOR SALE FOR USE IN THE PRAIRIE PROVINCES AND PEACE RIVER AREA OF BRITISH COLUMBIA ONLY

ACTIVE INGREDIENT: Imazamox 70% a.e.

Warning, contains the allergen sulfites

REGISTRATION NO. 32696 PEST CONTROL PRODUCTS ACT

NET CONTENTS: 470 g (4 x 117.5 g water-soluble bags)

WARNING - EYE IRRITANT

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

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

DO NOT SELL INDIVIDUAL WATER-SOLUBLE BAGS SEPARATELY

Manufactured by:
BASF Canada Inc.
5025 Creekbank Road
Building A, 2nd Floor
Mississauga, Ontario L4W 0B6

Distributed by:

Loveland Products Canada Inc.

789 Donnybrook Drive Dorchester, ON N0L 1G5 1-800-328-4678

1-877-371-2273

MIZUNA is a trademark of Loveland Products Canada Inc.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

DO NOT APPLY BY AIR.

Skin irritant.

WARNING - EYE IRRITANT

May cause eye damage.

Wear a long-sleeved shirt and long pants during all activities, and wear chemical-resistant gloves and goggles or face shield during mixing/loading, clean-up and repair activities.

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

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

TOXIC to non-target terrestrial plants. Observe 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 of this product when heavy rain is forecast.

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.

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

FIRST AID

If swallowed: Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

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

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

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

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

TOXICOLOGICAL INFORMATION

Treat symptomatically.

STORAGE

Store above 5°C.

Store in a cool, dry place away from children, animals, food, feed or fertilizers.

Keep unused water-soluble bags in resealed original container.

Keep packages dry at all times.

Keep packages out of rain.

Keep from freezing.

DISPOSAL

- Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
- 3. Make the empty container unsuitable for further use.
- 4. Dispose of the container in accordance with provincial requirements.
- 5. 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.

Booklet

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Avoid application of this product when heavy rain is forecast.

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.

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

Clearfield Lentils¹ (lentil varieties with the Clearfield trait) and Clearfield Sunflowers¹ (sunflower varieties with the Clearfield trait)

DIRECTIONS FOR USE (Prairie Provinces and Peace River Area of British Columbia only)

MIZUNA is a selective herbicide that can be applied as an early post-emergence treatment in **Clearfield** Lentils¹ and **Clearfield** Sunflowers¹.

When MIZUNA is applied early post-emergence, absorption may occur through both the roots and foliage. Susceptible weeds stop growing and eventually die.

DO NOT apply more than once per year.

DO NOT graze the treated **Clearfield** Lentils¹ or cut for hay within 20 days of application.

DO NOT graze treated sunflower plants or cut for straw; sufficient data are not available to support such use.

Pre-harvest Interval: After 60 days, **Clearfield** Lentils¹ can be harvested. Sunflowers can be harvested after 70 days.

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.

DO NOT apply by air.

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

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).

Method of Application	Crop	Buffer zones (metres) Required for the Protection of Terrestrial Habitat
Field sprayer	All crops	1

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.

The spray drift buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the Pesticides and Pest Management portion of the Health Canada website.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

BROADLEAF WEED AND GRASS CONTROL

MIZUNA at 21 g/ha (15 g a.e./ha) will control only:			
Lamb's-quarters* Stinkweed Wild mustard	Volunteer spring wheat (non-Clearfield tolerant wheat)		
MIZUNA at 29 g/ha (20 g a.e./ha) will control:			
Barnyard grass Cleavers* Cow cockle Green foxtail Green smartweed Japanese brome grass* Kochia* Lamb's-quarters Persian darnel Redroot pigweed Round-leaved mallow* Russian thistle Shepherd's purse Stinkweed	Volunteer barley Volunteer canary seed Volunteer canola (non-Clearfield tolerant canola only) Volunteer durum wheat Volunteer spring wheat (non-Clearfield tolerant wheat) Volunteer tame oats Wild buckwheat* Wild mustard Wild oats Yellow foxtail		

^{* =} suppression only

Apply in 100 L/ha of water with MERGE® Adjuvant at a rate of 0.5% v/v (e.g. 5 L of MERGE Adjuvant per 1000 L spray solution) or MSO Concentrate at 1% v/v.

Clearfield Sunflowers¹ (sunflower varieties with the Clearfield trait)

Application should be made from the 2 to 8 leaf stage of the sunflower crop and after the weeds have emerged. To control broadleaf weeds, apply MIZUNA from the cotyledon up to the 4-leaf stage. To control grasses, apply MIZUNA from the 1 to 4-true leaf stage up until early tillering. Initial transient crop yellowing may be observed after application but this is outgrown and should not affect yield.

Apply in 100 L/ha of water with MERGE® Adjuvant at a rate of 0.5% v/v (e.g. 5 L of MERGE Adjuvant per 1000 L spray solution) or MSO Concentrate at 1% v/v.

Clearfield Lentils¹ (lentil varieties with the Clearfield trait)

Application should be made from the 2 to 6 leaf stage of the lentil crop and after the weeds have emerged. To control broadleaf weeds, apply MIZUNA from the cotyledon up to the 4-leaf stage. To control grasses, apply MIZUNA from the 1 to 4-true leaf stage up until early tillering.

MIXING INSTRUCTIONS

- 1. Use 100 L/ha of water.
- 2. Use a 50-mesh (or coarser) filter screen.
- 3. Fill the spray tank with three-quarters of the required amount of clean water, start agitation and continue agitation throughout the entire mixing and spraying procedure.
- 4. Add the required amount of MIZUNA soluble bag(s) directly into the sprayer through the tank opening.
- 5. Agitate for at least ten minutes to dissolve the herbicide. After the herbicide is dissolved, continue agitation.
- 6. If required, add the required amount of MERGE Adjuvant or MSO Concentrate. If excess foaming occurs, a silicone anti-foaming agent may be added (e.g. HALT®).
- 7. Complete filling the tank to the desired level with water. If agitation is stopped for more than 5 minutes, re-suspend spray solution by full agitation prior to commencing spraying again.
- 8. Between loads of MIZUNA, check in-line and nozzle screens and rinse clean if necessary.
- 9. Upon completion of spraying MIZUNA, thoroughly flush tank, boom, hoses and in-line and nozzle screens with clean water to avoid possible injury to other crops.

FOLLOW CROPPING

Winter wheat can be planted 3 months after treatment (3 MAT) as a rotational crop.

Initial crop injury to non-**Clearfield** canola may be observed. Avoid spray overlap as yield reduction may result. The following crops may be grown safely the year following an application:

Canary seed Field corn Field peas

Clearfield Canola¹ (canola varieties with the Clearfield trait)

Non-Clearfield canola

Lentils
Spring wheat
Durum wheat
Spring barley
Sunflower
Tame oats

Flax Chickpeas

Clearfield Sunflowers¹ (sunflower varieties with the Clearfield trait)

The following crop may be grown safely two years following an application:

Mustard (condiment type only)

There are insufficient data for other follow crops. Conduct a field bioassay (a test strip grown to maturity) the year before growing any crop other than those listed above.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, MIZUNA is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to MIZUNA and other Group 2 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 MIZUNA or other Group 2 herbicides within a growing season (sequence) or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted. To delay resistance, the less resistance-prone partner should control the target weed(s) as effectively as the more resistance-prone partner.
- Herbicide use should be based on an integrated weed management program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical control methods), cultural (for example, higher crop seeding rates; precision fertilizer application method and timing to favour the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Monitor weed populations after herbicide application for signs of resistance development (for example, only one weed species on the herbicide label not controlled). If resistance is suspected, prevent weed seed production in the affected area if possible by an alternative herbicide from a different group. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- Have suspected resistant weed seeds tested by a qualified laboratory to confirm resistance and identify alternative herbicide options.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.

• For further information or to report suspected resistance, contact BASF at 1-877-371-2273 or at www.agsolutions.ca.

Clearfield is a registered trade-mark of BASF Agrochemical Products B.V., used with permission by BASF Canada Inc.

MERGE is a registered trade-mark of BASF Canada Inc.

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

Methods of growing plants which are resistant to certain acetohydroxyacid synthase (AHAS) herbicides are protected by Canadian Patent No. 1341465. Other applicable patents include Canadian Patent Application No. 2447445. The use of this product in the practice of patented methods could constitute patent infringement. Further information can be obtained by contacting BASF Canada at 1-877-371-2273.

Pouch Label

MIZUNA

70% Water Dispersible Granular Herbicide

AGRICULTURAL

NET CONTENTS: 117.5 g

ACTIVE INGREDIENT: Imazamox ... 70% active (a.e.)

Warning, contains the allergen sulfites

WARNING - EYE IRRITANT

KEEP OUT OF REACH OF CHILDREN