GROUP 2 HERBICIDE

Eurolightning

FOR SALE FOR USE IN THE PRAIRIE PROVINCES ONLY

HERBICIDE SOLUTION

COMMERCIAL (AGRICULTURAL)

ACTIVE INGREDIENT: Imazamox33 g/L Imazapyr 15 g/L

Contains 1,2-benzisothiazolin-3-one at 0.02% as a preservative

REGISTRATION NO. 33172

PCP ACT

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

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

NET CONTENTS: 1 L - 1000 L, Bulk

BASF Canada Inc. 100 Milverton Drive, 5th Floor Mississauga, Ontario L5R 4H1

1-877-371-2273

PRECAUTIONS

1. KEEP OUT OF REACH OF CHILDREN.

- 2. Wash exposed areas of skin thoroughly after handling and before eating, drinking or smoking or going to the washroom. Take a shower immediately after work.
- 3. Wear long-sleeved shirt, long pants and chemical resistant gloves and goggles or face shield during mixing, loading, clean up and repair. Wear long-sleeved shirt and long pants during application.
- 4. 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.

ENVIRONMENTAL HAZARDS

- 1. TOXIC to non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.
- 2. To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.
- 3. Avoid application of this product when heavy rain is forecast.
- 4. 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.
- 5. 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

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

DISPOSAL

Recyclable Containers

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

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

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

Returnable-Refillable Containers

For disposal, this empty 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 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.

2

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1. GENERAL INFORMATION

Eurolightning is a selective herbicide that is applied as an early post-emergence treatment in **Clearfield** Lentils¹. Use of **Eurolightning** on lentil varieties not designated with the **Clearfield** trait may cause severe crop injury. **Eurolightning** may be absorbed through both the roots and foliage and is translocated rapidly throughout the plant. Treated plants stop growing soon after spray application. Chlorosis appears first in the newest leaves, and necrosis spreads from this point. Chlorosis and tissue necrosis may not be apparent in some plant species until two weeks after application.

Eurolightning must be applied post-emergence to the weeds. For maximum activity, weeds should be growing vigorously at the time of post-emergence applications.

2. DIRECTIONS FOR USE (PRAIRIE PROVINCES ONLY)

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.

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	Сгор	Buffer Zone (metres) Required for the Protection of Terrestrial Habitat
Field sprayer	Clearfield Lentils ¹	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.

Overspray or drift to sensitive habitats should be avoided. DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, coulees, prairie potholes, creeks, marshes, streams, reservoirs, ditches and wetlands), estuaries or marine habitats.

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

3. REGISTERED USES

3.1 REGISTERED CROPS

Eurolightning is a selective herbicide that can be applied as an early post-emergence treatment. When **Eurolightning** is applied early post-emergence, absorption may occur through both the roots and foliage. Susceptible weeds stop growing and eventually die.

• Clearfield Lentils¹ (e.g., Lentil varieties with the Clearfield trait)

Use of **Eurolightning** on lentil varieties not designated with the **Clearfield** trait may cause severe injury.

4. DIRECTIONS FOR USE (PRAIRIE PROVINCES ONLY)

4.1 CROPS

Crop	Water Volume	PHI
Clearfield Lentils ¹ (e.g., Lentil varieties with the Clearfield trait	50-100 L/ha	60

Apply MERGE[®] Adjuvant at a rate of 0.5% v/v (e.g. 5 L of MERGE Adjuvant per 1000 L spray solution). See crop specific section for additional details.

4.2 WEEDS CONTROLLED

Eurolightning may be applied as an early post-emergence at a rate of 0.604 L/ha for control of weeds as listed below:

GRASSY WEEDS

Barnyard grass	
Green foxtail	
Spring germinating Japanese brome grass	
Wild oats	
Yellow foxtail	
Persian darnel	
Volunteer canary seed	
Volunteer durum wheat	
Volunteer barley	
Volunteer tame oats	
Volunteer spring wheat (non-imazamox tolerant wheat)	

BROADLEAF WEEDS CONTROLLED

• Cl	hickweed	
• CI	leavers	
• Co	ow cockle	
• Gı	reen smartweed	
• He	emp-nettle	
• La	amb's-quarters	
• R6	edroot pigweed	
• Ro	ound-leaved mallow	
• Rı	ussian thistle	
• Sh	hepherd's purse	
• St	tinkweed	
• St	tork's bill	
• W	/ild buckwheat	
• W	/ild mustard	
• Vo	olunteer tame mustard	
• Vo	Volunteer canola (non-Clearfield canola varieties only)	

4.3 CROP SPECIFIC RECOMMENDATIONS

4.3.1 Clearfield Lentils¹ (e.g., Lentil varieties with the Clearfield trait)

Timing	Early Post-emergence	
Rate	Apply Eurolightning as a single post-emergent application 0.604 L/ha.	
Crop Stage	Application should be from 1 – 9 node stage and after weeds have emerged.	

Grassy Weed Stage	To control grasses, apply Eurolightning from the $1-6$ true leaf stage with up to 2 tillers stage of grassy weeds with the exception of Japanese brome.
	To control Japanese brome, apply from the 1 – 4 leaf stage.
Broadleaf Weed Stage	To control broadleaf weeds, apply Eurolightning from the cotyledon to 4 leaf stage of broadleaf weeds.
	To control lamb's-quarters and wild buckwheat, apply Eurolightning from the cotyledon to 6 leaf stage.
Weeds Controlled	See Section 4.2 for a complete list of weeds controlled.
Remarks	Initial transient crop yellowing may be observed after application but this is outgrown and should not affect yield.
	Apply MERGE Adjuvant at a rate of 0.5% v/v (e.g. 5 L of MERGE Adjuvant per 1000 L spray solution).

4.4 MIXING INSTRUCTIONS

- 1. When applying **Eurolightning**, 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. Apply 50-100 L/ha of spray solution.
- 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 **Eurolightning** directly into the sprayer through the tank opening. Continue agitation and add the required amount of MERGE Adjuvant.
- 5. 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.
- 6. Between loads of **Eurolightning**, check in-line and nozzle screens and rinse and clean if necessary.
- 7. Upon completion of spraying **Eurolightning**, thoroughly flush tank, boom, hoses and inline and nozzle screens with clean water to avoid possible injury to other crops.

Dispose of all rinsings in accordance with provincial regulations.

4.5 SPRAYING INSTRUCTIONS

Select proper nozzle to avoid spraying fine mist. For best results, use sprayers equipped with flat fan or similar nozzles to ensure coverage. Apply in a spray volume of 50-100 L/ha and at a

pressure of 275 kPa. For applications to dense weed infestations and thick canopies, use the higher spray volume. Better coverage of the product results in enhanced control of weeds.

Keep bypass line on or near bottom of tank to minimize foaming. Use 16 mesh suction screens, 50 mesh screens elsewhere on sprayer.

4.6 ENVIRONMENTAL HAZARDS

- 1. TOXIC to non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.
- 2. To reduce runoff from treated areas into aquatic habitats, avoid application to areas with a moderate to steep slope, compacted soil, or clay.
- 3. Avoid application of this product when heavy rain is forecast.
- 4. 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.
- 5. 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.

4.7 ROTATIONAL CROPS

There is the possibility of residual soil activity for **Eurolightning the year following** application. In case of crop failure, please consult your BASF Representative.

1 year after application	2 years after application
 Canary seed Chickpeas Field peas Field corn Clearfield Canola¹ Clearfield Canola¹ Quality Brassica juncea Lentils including Clearfield Lentils¹ Spring wheat including Clearfield Spring Wheat¹ Spring barley Tame oats 	 Canola Durum wheat Flax Sunflower

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.

WARNING: Certain environmental conditions may delay the breakdown of herbicide residues in soil. These conditions include but are not limited to drought, extremes in soil pH and excessive cold. Under these conditions, the level of phytotoxic herbicide residues present in the field the season following an application may result in an increased potential for injury to succeeding crops to occur. This potential for increased residues under these environmental conditions is not unique to any specific herbicide or herbicide group but is a property of those herbicides which persist in the soil and are dependent on soil microbial activity and other non-microbial processes (e.g. hydrolysis) to breakdown.

4.8 RESTRICTIONS AND LIMITATIONS

- DO NOT apply when weather conditions may cause spray drift from treated fields to adjacent crops. Clean sprayer thoroughly after use to avoid damage to the next crop sprayed.
- 2. **DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.
- 3. **DO NOT** apply directly to water. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.
- 4. Apply using ground equipment only. **DO NOT** APPLY BY AIR.
- 5. **DO NOT** apply more than once per year.
- 6. **DO NOT** treat any crops not listed on this label.
- 7. **DO NOT** apply to any crops that have been subjected to stress from conditions such as hail damage, flooding, drought, hot, humid weather, widely fluctuating temperature conditions, prolonged cold weather or injury from prior herbicide applications, as crop injury may result.
- 8. 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.
- 9. As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.
- 10. 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.

4.9 WARNING

DO NOT apply **Eurolightning** when weather conditions may cause spray drift from treated areas to adjacent crops.

4.10 RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, **Eurolightning** is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to **Eurolightning** and other Group 2. 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 Eurolightning 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.

5. SAFETY AND HANDLING

5.1 PRECAUTIONS

1. KEEP OUT OF REACH OF CHILDREN.

- 2. Wash exposed areas of skin thoroughly after handling and before eating, drinking or smoking or going to the washroom. Take a shower immediately after work.
- 3. Wear long-sleeved shirt, long pants and chemical resistant gloves and goggles or face shield during mixing, loading, clean up and repair. Wear long-sleeved shirt and long pants during application.
- 4. 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.

5.2 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.

5.3 STORAGE

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

5.4 DISPOSAL

Recyclable Containers

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

- 1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
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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.

Returnable-Refillable Containers

For disposal, this empty 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 regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

5.5 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.

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

MERGE is a registered trademark 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.