(Sleeve)

GROUP 2 Herbicide

IPCO RADIAN

Herbicide

Solution

COMMERCIAL (AGRICULTURAL)

FOR SALE FOR USE IN THE PRAIRIE PROVINCES AND INTERIOR OF BRITISH COLUMBIA (INCLUDING THE PEACE RIVER REGION) ONLY

ACTIVE INGREDIENT: Imazamox (present as ammonium salt) ... 350 g/L

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



WARNING - EYE IRRITANT

REGISTRATION NO.: 34409 PEST CONTROL PRODUCTS ACT

Net Contents: 1 - 1050 Litres

Interprovincial Cooperative Limited, P.O. Box 1050, Saskatoon, Saskatchewan S7K 3M9 1-204-233-3461

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

Harmful if absorbed through skin or inhaled. Avoid breathing spray mist. Avoid contact with skin, eyes or clothing. May irritate eyes.

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. In addition, wear protective eyewear (goggles or face shield) during mixing/loading, clean-up and repair activities. Gloves are not required during application within a closed cab.

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

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.

EMERGENCY TELEPHONE NUMBERS

IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING, CALL 1-888-CAN-UTEC (226-8832)

ENVIRONMENTAL PRECAUTIONS

TOXIC to non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE.

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

Avoid application when heavy rain is forecast.

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

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.

STORAGE

- 1. Store above 5° C in original, tightly closed container.
- 2. Store this product away from food or feed.
- 3. Store in cool, dry, locked, well-ventilated area without floor drain.
- 4. Keep from freezing.

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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Interprovincial Cooperative Limited, P.O. Box 1050, Saskatoon, Saskatchewan S7K 3M9 1-204-233-3461

GENERAL INFORMATION

IPCO RADIAN is a selective herbicide that can be applied as an early post-emergence treatment in field peas, dry beans, soybeans, imidazolinone-tolerant lentils, and imidazolinone-tolerant sunflowers for broad-spectrum weed control.

Cool weather conditions or drought will delay herbicidal activity and if prolonged, may result in poor weed control. Use of **IPCO RADIAN** in hot, humid weather may result in temporary leaf yellowing, leaf flecking, bronzing or burning. The crop usually outgrows this condition within 10 days.

When weeds are stressed due to drought, flooding, hot or prolonged cool temperatures (15°C or less), control can be reduced or delayed since weeds are not actively growing. Weeds escapes or regrowth may occur under prolonged stress conditions or low fertility. Do not make applications to weeds stressed longer than 20 days due to lack of moisture, as unsatisfactory control can result.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

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Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. In addition, wear protective eyewear (goggles or face shield) during mixing/loading, clean-up and repair activities. Gloves are not required during application within a closed cab.

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

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.

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TOXICOLOGICAL INFORMATION

Treat symptomatically.

EMERGENCY TELEPHONE NUMBERS

IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING, CALL 1-888-CAN-UTEC (226-8832)

ENVIRONMENTAL PRECAUTIONS

TOXIC to non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE.

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

Avoid application when heavy rain is forecast.

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

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.

DIRECTIONS FOR USE

APPLICATION INSTRUCTIONS AND USE LIMITATIONS

- DO NOT APPLY BY AIR. Apply using ground equipment only.
- DO NOT apply more than once per year.
- DO NOT apply to 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 mayresult.
- DO NOT apply when weather conditions may cause spray drift from treated areas to adjacent crops.
- As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.
- DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.
- Apply only to agricultural crops when the potential for drift to areas of human habitation and human activity, such as houses, cottages, schools and recreational areas, is minimal. Take into consideration wind speed, wind direction, temperature inversion, application equipment and sprayer settings.

PRE-HARVEST, GRAZING AND FEEDING INTERVALS

- Grazing/Feeding: Do not graze the treated crops; Field peas may be fed to livestock 30 days after application.
- Pre-harvest Interval: Field peas can be harvested 60 days after treatment. Dry beans can be harvested 75 days after treatment. Soybeans can be harvested 85 days after treatment.
- DO NOT graze the treated imidazolinone-tolerant lentils 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, imidazolinone-tolerant lentils can be harvested. Sunflowers can be harvested after 70 days.

SPRAY BUFFER ZONES

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.

Spot treatments using hand-held equipment do not require a spray buffer zone. Use of low-clearance hooded or shielded sprayers that prevent spray contact with crop, fruit or foliage, and soil drench or soil incorporation do not require a spray buffer zone.

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	Стор	Spray buffer zone (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) spray buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

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

REGISTERED CROPS AND APPLICATION TIMING

Registered Crops:

- Soybeans
- Field peas
- Dry beans
- Imidazolinone-tolerant lentils
- Imidazolinone-tolerant sunflowers

Soybeans

IPCO RADIAN is a selective herbicide that can be applied as an early post-emergent treatment in soybeans for control of grass and broadleaf weeds.

APPLICATION INSTRUCTIONS – IPCO RADIAN + Carrier adjuvant	
Timing	Early post-emergence
Rate	IPCO RADIAN at 57 mL/ha + Carrier at 0.25% v/v
Water Volume	100 L/ha
Weeds Controlled	Provides control of broadleaf and grass weeds as listed in the WEEDS CONTROLLED section of this label.
Pre-harvest Interval	85 days
Remark	Soybeans: Apply from Emergence to 3 expanded trifoliate leaves after weeds have emerged.
	Weeds: Apply when broadleaf weeds are from the cotyledon to 4- leaf stage and when grassy weeds are at the 1 - 4 true leaf or early tillering.

Field Peas

IPCO RADIAN is a selective herbicide that can be applied as an early post-emergent treatment in field peas for control of broadleaf weeds.

APPLICATION INSTRUCTIONS – IPCO RADIAN + Carrier adjuvant	
Timing	Early post-emergence
Rate	IPCO RADIAN at 57 mL/ha + Carrier at 0.25% v/v
Water Volume	100 L/ha
Weeds Controlled	Provides control of broadleaf and grass weeds as listed in the WEEDS CONTROLLED section of this label.
Pre-harvest Interval	60 days
Remark	Apply from the 1 - 6 true leaf stage of field peas after weeds have emerged.
	Weeds: Apply when broadleaf weeds are from the cotyledon to 4- leaf stage and when grassy weeds are at the 1 - 4 true leaf or early tillering.

For field peas, initial transient crop yellowing may be observed after application but this is outgrown and
should not affect yield.

Dry Beans

IPCO RADIAN is a selective herbicide that can be applied as an early post-emergent treatment in dry beans for control of grass and broadleaf weeds.

APPLICATION INSTRUCTIONS – IPCO RA	ADIAN + Carrier adjuvant
Timing	Early post-emergence
Rate	IPCO RADIAN at 57 mL/ha + Carrier at 0.25% v/v
Water Volume	100 L/ha
Weeds Controlled	Provides control of broadleaf and grass weeds as listed in the WEEDS CONTROLLED section of this label.
Pre-harvest Interval	75 days
Remark	Apply from Emergence to 3 expanded trifoliate leaves after weeds have emerged. Weeds: Apply when broadleaf weeds are from the cotyleden to 4- leaf stage and when grassy.
	the cotyledon to 4- leaf stage and when grassy weeds are at the 1 - 4 true leaf or early tillering. For dry beans tolerance may vary between varieties. Test new varieties on a small area for tolerance
	before widespread use.

Dry bean varieties may vary in their tolerance to herbicides, including to **IPCO RADIAN.** Since not all dry bean varieties have been tested for tolerance to **IPCO RADIAN**, first use of this 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 the tolerance of specific varieties of dry common beans to **IPCO RADIAN**.

Imidazolinone-tolerant Lentils and Imidazolinone-tolerant Sunflowers

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

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

Imidazolinone-tolerant Lentils

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 **IPCO RADIAN** from the cotyledon up to the 4-leaf stage. To control grasses, apply **IPCO RADIAN** from the 1 to 4-true leaf stage up until early tillering.

Rate: 57 mL/ha IPCO RADIAN

Apply in 100 L/ha of water with Carrier adjuvant at a rate of 0.25% v/v (e.g. 2.5 L of Carrier per 1000 L spray solution).

Imidazolinone-tolerant Sunflowers

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 **IPCO RADIAN** from the cotyledon up to the 4-leaf stage. To control grasses, apply **IPCO RADIAN** 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.

Rate: 57 mL/ha IPCO RADIAN

Apply in 100 L/ha of water with Carrier adjuvant at a rate of 0.25% v/v (e.g. 2.5 L of Carrier per 1000 L spray solution).

TANK MIXES

This product may be tank mixed with a fertilizer, a supplement, or with registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact Interprovincial Cooperative Ltd. at 1-204-233-3461 for information before applying any tank mix that is not specifically recommended on this label.

Tank Mixture: IPCO RADIAN + Nu-Image® Herbicide

APPLICATION INSTRUCTIONS – IPCO RA	APPLICATION INSTRUCTIONS – IPCO RADIAN + Nu-Image Herbicide + Carrier adjuvant	
Timing	Early post-emergence	
Rate	IPCO RADIAN at 46 mL/ha + Nu-Image Herbicide at	
	65 mL/ha + Carrier at 0.25% v/v	
Water Volume	100 L/ha	
Weeds Controlled	Provides control of broadleaf and grass weeds as listed in the WEEDS CONTROLLED section of this label.	
Pre-harvest Interval	75 days for dry beans; 85 days for soybeans	
Remark	Soybeans: Apply from Emergence to 3 expanded trifoliate leaves after weeds have emerged.	
	Dry Beans: Apply from Emergence to the second trifoliate leaf after weeds have emerged.	

Weeds: Apply when broadleaf weeds are from the cotyledon to 4- leaf stage and when grassy weeds are at the 1 - 4 true leaf or early tillering.
For dry beans tolerance may vary between varieties. Test new varieties on a small area for tolerance before widespread use.

WEEDS CONTROLLED

IPCO RADIAN

APPLICATION INSTRUCTIONS - IPCO RADIAN + Carrier adjuvant used as directed will control:

IPCO RADIAN at 57 mL/ha + Carrier at 0.25% v/v	
WEEDS CONTROLLED	
GRASS WEEDS	RECOMMENDED STAGE
Barnyard grass	
Green foxtail (including Group 1 resistant) ¹	
Persian Darnel	
Tame oat	
Volunteer barley	1-4 true leaf stage or early tillering
Volunteer canaryseed	
Volunteer wheat (non-CLEARFIELD varieties)	
Wild oat (including Group 1 resistant) ¹	
Yellow foxtail	
BROADLEAF WEEDS	RECOMMENDED STAGE
Cow Cockle	
Flixweed	
Green smartweed	
Lamb's quarters	
Redroot Pigweed	Catylodon to Algafistage
Shepherd's Purse	Cotyledon to 4 leaf stage
Stinkweed	
Stork's bill	
Volunteer Canola (non-CLEARFIELD varieties)	
Wild mustard	
WEEDS SUPPRESSED	
Cleavers	
Japanese brome	
Wild buckwheat	

¹ **IPCO RADIAN** will not control weed biotypes that are multiple-resistant to both Group 1 and Group 2 Herbicides.

Tank Mixture: IPCO RADIAN + Nu-Image Herbicide

APPLICATION INSTRUCTIONS – IPCO RADIAN + Nu-Image Herbicide + Carrier adjuvant used as directed will control:

WEEDS CONTROLLED	
GRASS WEEDS	RECOMMENDED STAGE
Green foxtail (including Group 1 resistant) ¹	
Tame oat	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Wild oat (including Group 1 resistant) ¹	1-4 true leaf stage or early tillering
Yellow foxtail	
BROADLEAF WEEDS	RECOMMENDED STAGE
Chickweed	
Green smartweed	
Lamb's quarters	Catylodon to 4 loof stage
Redroot Pigweed	Cotyledon to 4 leaf stage
Stinkweed	
Wild mustard	
WEEDS SUPPRESSED	
Barnyard grass	
Volunteer barley	
Volunteer canola (non-CLEARFIELD)	
Wild buckwheat	

¹ **IPCO RADIAN** will not control weed biotypes that are multiple-resistant to both Group 1 and Group 2 Herbicides.

MIXING INSTRUCTIONS

- Use 50-100 L/ha of water.
- Use a 50-mesh (or coarser) filter screen.
- Fill the spray tank three- quarters full with water.
- Add the required amount of IPCO RADIAN directly into the sprayer through the tank opening.
- Agitate until herbicide is thoroughly mixed.
- Continue agitation and add the required amount of the tank-mix partner.
- Continue agitation while adding the required amount of Carrier adjuvant.
- If excess foaming occurs, a silicone anti-foaming agent may be added (e.g. HALT).
- Complete filling the tank to the desired level with water.
- Upon completion of spraying, thoroughly flush tank, boom, hoses and in-line and nozzle screens with clean water to avoid possible injury to other crops.
- Repeat sprayer cleanout process using an appropriate spray system cleaner.

ROTATIONAL CROPS

There is the possibility of residual soil activity for **IPCO RADIAN** the year following application.

Research studies have shown that the following crops may be safely planted the year following **IPCO RADIAN** application:

- Spring Barley
- Canary seed
- Canola
- Chickpea
- Field Corn
- Field Pea
- Flax
- Lentil
- Tame Oat
- Soybean
- Clearfield Sunflower (sunflower varieties with the Clearfield trait)
- Spring Wheat (including Durum wheat)

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. 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, **IPCO RADIAN** is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to **IPCO RADIAN** 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 **IPCO RADIAN** 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 company representatives at 1-204-233-3461.STORAGE
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DISPOSAL

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[®]All products listed are trademarks of their respective companies.