

# Rival<sup>®</sup>

**Emulsifiable Concentrate  
Liquid Herbicide**

## COMMERCIAL

GROUP

3

HERBICIDE

### POTENTIAL SKIN SENSITIZER

Nufarm Agriculture Inc.  
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Calgary, Alberta T2H 1H9  
1-800-868-5444

24 Hour Emergency Response Number  
1-800-424-9300

Rival<sup>®</sup> is a registered trademark  
of Nufarm Agriculture Inc.

### GUARANTEE:

Trifluralin 500 grams per litre

### READ THE LABEL AND THIS BOOKLET BEFORE USING

For Pre-Emergence Control of Many Grassy  
and Broadleaf Weeds in Field Crops,  
Vegetables and Ornamentals

REGISTRATION NO. 18612  
PEST CONTROL PRODUCTS ACT



**DIRECTIONS FOR USE:**

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Discard clothing or other absorbent materials that have been heavily contaminated with this product. DO NOT reuse them.

Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, 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.

To minimize the release of trifluralin into the environment due to volatilization, trifluralin should only be applied on cool mornings and evenings when air temperatures are 15°C or lower. To further reduce volatilization to the atmosphere, incorporation into the soil should occur concurrently with application.

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.

The buffer zones specified in the following table are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelterbelts, woodlots, hedgerows, rangelands, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of Application	Crop	Buffer Zones (Metres) Required for the Protection of:				
		Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial Habitat
		Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	
Field sprayer*	Fall-seeded wheat, rye and triticale grown in rotation with tobacco	35	4	3	1	0
	Rutabaga, carrots, peppers, strawberries, tomatoes, summer fallow followed by spring wheat, white turnips, forage kale, forage rape	55	5	4	2	1
	Brussels sprouts, cauliflower and crambe, sainfoin and sweet clover	70	10	5	2	1
	Alfalfa, beans (common, dry, kidney, black, Lima), fababeans, snapbeans, peas, soybeans, sunflowers, lentils, barley and wheat, canola/rapeseed, triazine tolerant canola/rapeseed, flax, mustard and safflower	80	10	5	3	1
	Asparagus, broccoli and cabbage.	90	10	5	3	1
	Woody and perennial ornamental planting and nursery stock (field and container grown), shelterbelts (American elm, caragana, green ash, Scotch pine, Siberian elm)	120	20	15	5	1

\* 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%.

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

## **PART 1: USES IN THE PRAIRIE PROVINCES AND PEACE RIVER REGION OF BRITISH COLUMBIA ONLY**

### **GENERAL INFORMATION**

RIVAL EC is a specially formulated herbicide for the control of certain annual grassy and broadleaf weeds in Canola (Rapeseed), including triazine tolerant Canola, Wheat (spring application, millet only), Barley (spring application, millet only), Sunflowers, Safflower, Tame Mustard, Fababeans, Dry Common Beans (Kidney and White only), Black Beans, Peas (field and processing), Soybeans, Crambe, Sainfoin (spring application only), Strawberries (spring application only), Cabbage, Cauliflower, Carrots, Rutabaga, Tomato, Broccoli, Brussels Sprouts, Peppers, Sweet Clover (spring only), Snapbeans and Asparagus (established 3 years or more), Flax (fall or summer application only), and Lentils (fall only). RIVAL EC can also be used in transplanted shelterbelts.

**RIVAL EC herbicide must not be used on any crop for which it is not registered.**

### **FALL APPLICATION OF PRE-EMERGENCE HERBICIDES**

For reasons of soil conservation, Nufarm does not recommend the fall application of RIVAL EC to soils which are subject to erosion by wind, water or other factors. Fall application to summerfallow under certain conditions such as low trash cover or light textured soils may predispose the field to wind and/or water erosion and is not recommended.

Read all directions carefully before applying RIVAL EC HERBICIDE.

**CAUTION:** Populations of green foxtail tolerant to trifluralin have developed in a number of fields in western Canada which have had a long history of repeated trifluralin use. Trifluralin or ethalfluralin containing products (i.e., Heritage®, RIVAL EC, Treflan®, Triflurex®, Fortress®, and Edge®) will not control trifluralin tolerant green foxtail. To delay selection or reduce the spread of trifluralin tolerant green foxtail, avoid repeated use of these products in the same field, or use a separate herbicide application for control of trifluralin tolerant green foxtail. Herbicides like Laser®, Hoe-Grass® 284, Hoe-Grass II, Excel®, and NaTA® are suitable alternatives to control trifluralin tolerant green foxtail. Please refer to the specific product label for rates and registered crops.

### **DIRECTIONS FOR USE IN ALL CROPS**

- Do not apply to soils which contain more than 15% organic matter such as peat or muck soils.
- Do not apply to wet soils that are subject to excessive flooding.
- Do not apply to soils that are extremely lumpy, cloddy or in poor working condition.
- For maximum weed control and crop tolerance, follow label directions at all times. Read all directions before applying RIVAL EC.

**CAUTION:** Application of RIVAL EC to soils that are subject to flooding (standing water for more than 3-5 days) may result in reduced weed control. This reduction in weed control may occur if the soils are flooded between the time of RIVAL EC application and crop maturity (harvest). If these soils are flooded for a considerable period of time (3 weeks or more) the result may be no weed control at all.

When used according to label directions, RIVAL EC will not damage the treated crop. Emerging crop, weakened from factors such as deep planting, excessive moisture, cold temperatures, seedling disease, poor soil fertility, drought, and/or saline soils may increase the risk of damage from RIVAL EC resulting in a delay in crop maturity and/or reduced yields.

Highly sensitive crops such as Tame Oats, Sugarbeets and small seeded annual grasses (Timothy, Canary Seed Grass, and Creeping Red Fescue) should not be grown in rotation the year following RIVAL EC application.

### **RECRIPPING INSTRUCTIONS**

The rate of breakdown of RIVAL EC in the soil is influenced by environmental factors which occur during the year of control, and those of the following spring. If precipitation during this period is below normal, the level of carryover into the fall and the next growing season will be increased. The general distribution and timing of the precipitation will also affect the residual persistence of RIVAL EC.

Crop injury may result to rotational crops (e.g. fall planted cereals or spring wheat) if these crops are sown in the season following unusually dry conditions. To reduce injury to rotational crops, seed the crops shallow into a warm and moist seedbed.

FOR EXAMPLE: RIVAL EC SPRING APPLIED  
RAPESEED PLANTED – DRY SOIL CONDITIONS  
WINTER WHEAT PLANTED – POSSIBLE CROP INJURY

### **SUSCEPTIBLE WEEDS**

ANNUAL GRASSY WEEDS include Wild Oats, Green and Yellow Foxtail (Wild Millet), Barnyard Grass, Persian Darnel, Annual Bluegrass, Crabgrass, Stinkgrass, Bromegrass, Cheat, and Goosegrass.

ANNUAL BROADLEAF WEEDS include Pigweed, Russian Thistle, Lamb's-quarters, Chickweed, Carpetweed, Knotweed, Purslane, Cow Cockle, and Wild Buckwheat.

The above weeds will be controlled when RIVAL EC is applied at recommended rates and used as directed. Ensure that all incorporation directions are followed. Some Wild Oats and Wild Buckwheat may escape the RIVAL EC herbicidal action; however the crop competition will effectively suppress the escaped weeds so that little or no competition results with the crop.

### **TIME OF APPLICATION**

RIVAL EC is applied before crop or weed emergence. It is incorporated thoroughly into the soil to provide herbicidal action that will control all susceptible weeds. RIVAL EC does not control susceptible weeds that have already emerged through the soil at the time of application. It only controls susceptible weeds as they germinate.

### **LAND PREPARATION**

Before applying RIVAL EC, ensure that all emerged and existing weeds have been eliminated through discing or cultivation. For application to stubble or trashy soils, thoroughly disc the soils prior to RIVAL EC application to ensure that all crop residues and trash material have been mixed into the soil to a depth of 10-15 cm.

If manure has been applied to the field, ensure that it is thoroughly mixed into the soil with at least two tillage operations prior to RIVAL EC application.

If the field has been burned in order to remove previous crop residue (straw, trash, etc.), ensure that the field is tilled at least once prior to RIVAL EC application.

**NOTE:** DO NOT PLOW (MOLDBOARD) LAND PRIOR TO RIVAL EC APPLICATION.

### **METHOD OF APPLICATION**

Application should be made in a minimum of 110 litres of water per hectare at a pressure of 200-275 kPa. Apply RIVAL EC uniformly to the soil surface and incorporate within 24 hours after application. Do not apply to lumpy soils. Fill sprayer one-third full of clean water then add the recommended amount of RIVAL EC. Continue the filling operation until required volumes are achieved. Vigorous agitation is required before applying RIVAL EC. Apply with ground equipment only.

Susceptible crops in rotation will not be damaged if RIVAL EC is applied uniformly. Avoid over-application. Do not initiate RIVAL EC application until the sprayer is moving.

**NOTE:** DO NOT APPLY RIVAL EC BY AIRCRAFT.

### **INCORPORATION**

Incorporate with disc implements or cultivators only. Deep tillage cultivators are not recommended. A tandem disc is recommended for the first incorporation. Do not delay the first incorporation more than 24 hours after RIVAL EC application. The first incorporation should be in the same direction as application. Both incorporations must be to a depth of 8-10 cm. The second incorporation must be at right angles to the first. Disc implements should be operated at 6-10 km/h and cultivators at 10-13 km/h.

### **NOTE:**

- Incorporate RIVAL EC to a depth of 8-10 cm only for maximum weed control and crop tolerance.
- Use a disc implement when incorporating RIVAL EC on stubble or trashy soils.
- Cultivators should only be used for RIVAL EC incorporation when soils are in good working condition.

**CAUTION:** Do not graze the treated crops or cut for hay; there are not sufficient data available to support such use.

### **INSTRUCTIONS FOR SPRING APPLICATION**

RIVAL EC can be applied in the spring pre-plant incorporated for weed control during that crop year. Apply spring rates and follow incorporation instructions. The first incorporation **must be done no later than 24 hours after application**. The second incorporation may be done at the time of seedbed preparation provided it is done at the recommended depth. Follow all incorporation instructions. Spring application is not recommended for Flax and Lentils.

### **INSTRUCTIONS FOR SUMMER APPLICATION**

For weed control in Flax (DO NOT USE ON LOW LINOLENIC ACID VARIETIES), Canola (Rapeseed) and triazine tolerant Canola (Rapeseed) in the following year, apply RIVAL EC to summer fallow between June 1 and September 1 using the summer rate and follow incorporation instructions. Do not delay the initial incorporation more than 24 hours after application of RIVAL EC. All subsequent incorporations may be done whenever resistant weed growth occurs for the remainder of the fallow season. Prior to planting the crop the following spring, a shallow tillage after the soil has warmed is required. This is required for seedbed preparation and is best done with a vibrashank cultivator or disc implement cutting to a depth of 5-8 cm.

### **INSTRUCTIONS FOR FALL APPLICATION**

For weed control in the following year, apply RIVAL EC in the fall between September 1 and soil freeze-up, using fall rates and following incorporation instructions. Do not delay initial incorporation more than 24 hours after application. The second incorporation may be done in the spring at the time of seedbed preparation and to the recommended depth. If both incorporations are done in the fall, a shallow tillage the following spring and prior to seeding is required. This shallow tillage is best done with a vibrashank cultivator or disc implement cutting to a depth of 5-8 cm. It is preferred if both incorporations are done in the fall.

## OILSEED AND SPECIAL CROPS EXCEPT FLAX AND LENTILS

### Application Rates in Litres per Hectare

CROPS AND SEASON	SOIL TEXTURE, SOIL ORGANIC MATTER (O.M.) AND SOIL ZONE				REMARKS
	LIGHT SOILS sand, sandy loam		MEDIUM OR HEAVY SOILS loam, silt loam, silt, sandy clay loam, silty clay loam, silty clay, clay		
	2-6% O.M. brown, dark brown, black & grey wooded soil zone	6-15% O.M. brown, black, deep black soil zone	2-6% O.M. brown, dark brown, black & grey wooded soil zone	6-15% O.M. black, deep black soil zone	
<b>SPRING APPLICATION</b>					
Canola (Rapeseed), triazine tolerant Canola (Rapeseed), Mustard, Soybeans, Dry Common Beans (White and Kidney), Sunflower, Fababeans, Peas (field & processing), Sainfoin, Black Beans, Crambe, Safflower, Cabbage (direct seeded or transplanted), Cauliflower (direct seeded or transplanted).	1.6 L 5.6 ha/jug	2.2 L 4.1 ha/jug	2.2 L 4.1 ha/jug	2.2 – 2.8 L 3.2 – 4.1 ha/jug Use the higher rate for heavy Wild Oat infestations.	RIVAL EC may be applied and incorporated from 3 weeks before planting up to the time of planting. The first incorporation must be done within 24 hours of application.
Strawberries, Carrot, Rutabaga, Tomato, Broccoli, (transplanted), Brussels Sprouts, (transplanted), Peppers, Sweet Clover, Snapbeans.	1.6 L 5.6 ha/jug	2.2 L 4.1 ha/jug	2.2 L 4.1 ha/jug	2.2 L 4.1 ha/jug	Use a maximum of 2.2 L/ha for all soil types, except light soils with 2-6 percent O.M.
Asparagus	2.0 L 4.5 ha/jug	2.0 L 4.5 ha/jug	3.0 L 3 ha/jug	4.0 L 2.3 ha/jug	Use only on Asparagus that is established 3 seasons or more.
Shelterbelts (Siberian Elm, Caragana, American Elm, Green Ash, Scotch Pine)	4.4 L 2.0 ha/jug	8.8 L 1.0 ha/jug	8.8 L 1.0 ha/jug	8.8 L 1.0 ha/jug	Apply RIVAL EC before transplanting. Better and longer weed control will be achieved with the higher rate.
<b>FALL APPLICATION</b>					
Canola (Rapeseed), triazine tolerant Canola (Rapeseed), Mustard, Sunflower, Peas (field & processing), Fababeans, Black Beans, Safflower	2.2 L 4.1 ha/jug	2.8 L 3.2 ha/jug	2.8 L 3.2 ha/jug	2.8 – 3.4 L 2.6 – 3.2 ha/jug Use the higher rate for heavy Wild Oat infestations.	Apply RIVAL EC between Sept. 1 and up to soil freeze-up. The first incorporation must be done within 24 hours of application.
<b>SUMMER APPLICATION</b>					
Canola (Rapeseed), triazine tolerant Canola (Rapeseed)	3.4 L 2.6 ha/jug	3.4 L 2.6 ha/jug	3.4 L 2.6 ha/jug	3.4 L 2.6 ha/jug	Apply RIVAL EC between June 1 and September 1. The first incorporation must be done within 24 hours of application.

### SPECIAL INSTRUCTIONS FOR FLAX AND LENTILS (DO NOT USE ON LOW LINOLENIC ACID VARIETIES OF FLAX)

- Application of RIVAL EC to Flax may be made in summer or fall. Apply to Lentils in fall only.
- Both incorporations should be done in the fall (summer) prior to seeding Flax or Lentils in the spring.
- To ensure a firm seedbed and maintain a constant depth of planting, a shallow tillage and a packed seedbed in the spring is recommended.
- Seed with a drill to a depth of 2-4 cm into a moist and firm seedbed.
- Seed Flax or Lentils when soil temperatures are warm and greater than 6°C. This is usually after mid-May.

- Environmental factors that are referred to in the “Directions for Use” section may cause crop injury and reduced yields.
- Do not use on low linolenic acid varieties of Flax.

## FLAX AND LENTILS

**(DO NOT USE ON LOW LINOLENIC ACID VARIETIES of flax.)**

**(Use the Following Rates in Flax and Lentils ONLY)**

**Application Rates in Litres per Hectare**

CROPS AND SEASON	SOIL TEXTURE, SOIL ORGANIC MATTER (O.M.) AND SOIL ZONE				REMARKS
	LIGHT SOILS sand, sandy loam		MEDIUM OR HEAVY SOILS loam, silt loam, silt, sandy clay loam, silty clay loam, silty clay, clay		
	2-6% O.M. brown, dark brown, black & grey wooded soil zone	6-15% O.M. brown, black, deep black soil zone	2-6% O.M. brown, dark brown, black & grey wooded soil zone	6-15% O.M. black, deep black soil zone	
<b>FALL APPLICATION</b>					
Lentils, Flax	2.2 L	2.8 L	2.2 L	2.8 – 3.4 L	Apply RIVAL EC between Sept. 1 and up to soil freeze-up. The first incorporation must be within 24 hours of application.
	4.1 ha/jug	3.2 ha/jug	4.1 ha/jug	2.6 – 3.2 ha/jug	
<b>SUMMER APPLICATION</b>					
Flax	3.4 L	3.4 L	3.4 L	3.4 L	Apply RIVAL EC between June 1 and September 1. The first incorporation must be within 24 hours of application.
	2.6 ha/jug	2.6 ha/jug	2.6 ha/jug	2.6 ha/jug	

## DIRECTIONS FOR USE TRIAZINE TOLERANT CANOLA (RAPESEED)

### CAUTION:

RIVAL EC plus Sencor® must only be used on triazine tolerant Canola (Rapeseed) varieties. Non-triazine tolerant varieties will be severely damaged or killed by this tank-mix treatment.

### METHOD OF APPLICATION:

RIVAL EC plus Sencor is applied as a pre-plant incorporated tank-mix to control a broad spectrum of weeds in triazine tolerant Canola (Rapeseed) varieties. It is applied before crop or weed emergence and may be applied in the spring before seeding triazine tolerant Canola (Rapeseed) or in the previous fall between September 1 and soil freeze-up. **Follow all Land Preparation, Method of Application, Incorporation, and Precaution directions that apply to Rival EC used alone in oilseed and special crops found on this label.**

### WEEDS CONTROLLED BY RIVAL EC PLUS SENCOR:

In addition to those weeds controlled by RIVAL EC alone, the RIVAL EC-Sencor tank-mix also controls the following weeds: Wild Mustard, Volunteer Canola (non-triazine tolerant), stinkweed, green smartweed, Lady's-thumb, Shepherd's-purse, Hemp-nettle.

### APPLICATION RATES: TRIAZINE TOLERANT CANOLA (RAPESEED) ONLY

This mixture is applied in the fall or spring using the following application rates:

## SPRING APPLICATION

### RIVAL EC PLUS SENCOR TANK MIX IN TRIAZINE TOLERANT CANOLA

#### SPRING APPLICATION RATES IN LITRES, MILLILITRES OR GRAMS PER HECTARE

PRODUCT	SOIL TEXTURE, ORGANIC MATTER (O.M.) AND SOIL ZONES					
	LIGHT SOILS sand, sandy loam		MEDIUM OR HEAVY SOILS loam, silt loam, silt, sandy clay loam, silty clay loam, silty clay, clay			
	2-6% Organic Matter brown, dark brown, black & grey wooded soils		2-6% Organic Matter brown, dark brown, black & grey wooded soils		6-15% Organic Matter brown, black, and deep black soils	
<b>RIVAL EC</b>	1.6 L		2.2 L		2.2-2.8 L*	
	2-3% O.M.	3-6% O.M.	2-3% O.M.	3-6% O.M.	6-10% O.M.	10% or more O.M.
<b>SENCOR 500 F</b>	425 mL/ha	550 mL/ha	425 mL/ha	550 mL/ha	550 - 850 mL/ ha**	850 mL/ha
<b>SENCOR 75 DF</b>	275 g/ha	375 g/ha	275 g/ha	375 g/ha	375 - 550 g/ha**	550 g/ha

\* On black soils with 6-15% organic matter, use the higher RIVAL EC rate where wild oat infestations are high.

\*\* Sencor 500 F/75 DF rate varies with soil organic matter as such: use higher rate of Sencor for higher organic matter soils.

## FALL APPLICATION

### RIVAL EC PLUS SENCOR TANK MIX IN TRIAZINE TOLERANT CANOLA

#### FALL APPLICATION RATES IN LITRES, MILLILITRES OR GRAMS PER HECTARE

PRODUCT	SOIL TEXTURE, ORGANIC MATTER (O.M.) AND SOIL ZONES					
	LIGHT SOILS sand, sandy loam		MEDIUM OR HEAVY SOILS loam, silt loam, silt, sandy clay loam, silty clay loam, silty clay, clay			
	2-6% Organic Matter brown, dark brown, black & grey wooded soils		2-6% Organic Matter brown, dark brown, black & grey wooded soils		6-15% Organic Matter brown, black, and deep black soils	
<b>RIVAL EC</b>	2.2 L		2.8 L		2.8-3.0 L*	
	2-3% O.M.	3-6% O.M.	2-3% O.M.	3-6% O.M.	6-10% O.M.	10% or more O.M.
<b>SENCOR 500 F</b>	550 mL/ha	700 mL/ha	550 mL/ha	700 mL/ha	700 - 850 mL/ ha**	850 mL/ha
<b>SENCOR 75 DF</b>	375 g/ha	475 g/ha	375 g/ha	475 g/ha	475 - 550 g/ha**	550 g/ha

\* On black soils with 6-15% organic matter, use the higher RIVAL EC rate where Wild Oat infestations are high.

\*\* Sencor 500 F/75 DF rate varies with soil organic matter as such: use higher rate of Sencor for higher organic matter soils.

## CAUTION:

- On variable soils with sandy areas, some injury may result in those areas if the rate used is for heavier soils in the field.
- Do not use on soils with less than 2% organic matter.
- On soils with more than 10% organic matter, broadleaf weed control may be inconsistent.
- Stress conditions identified under "Directions for use of RIVAL EC in Oilseed and Special crops" also apply in triazine tolerant Rapeseed (Canola). Under these conditions, temporary lightening in color may occur on the margins of cotyledons and a slight delay in crop development may occur. These will quickly be outgrown and no long-term effects will be noticed.
- Do not grow non-triazine tolerant Canola (Rapeseed) varieties in rotation after using RIVAL EC plus Sencor.

## APPLICATION OF RIVAL EC PLUS SENCOR

Apply RIVAL EC plus Sencor to the soil surface and incorporate in the same operation if possible. Do not delay the first incorporation more than 24 hours. A second incorporation at right angles to the first is required prior to seeding the triazine tolerant Rapeseed (Canola). Refer to the Sencor label for more specific instructions of Sencor usage in triazine tolerant Rapeseed (Canola).

- DO NOT USE FINER LINE OR NOZZLE SCREENS THAN 50 MESH
- DO NOT USE FELT FILTERS OR NOZZLE TIPS THAT PROVIDE LESS THAN 100 LITRES PER HECTARE

## MIXING DIRECTIONS FOR RIVAL EC PLUS SENCOR

The following sequence must be followed when mixing RIVAL EC and Sencor

- Fill spray tank 1/3 full with clean water.
- Add the required volume of Sencor to the spray tank while providing agitation of the mixture.
- Add the remainder of clean water to the spray tank.
- After thoroughly mixing the Sencor, add the required amount of RIVAL EC to the spray tank and agitate thoroughly for 5 to 10 minutes.
- SPRAY IMMEDIATELY and provide continuous agitation while the mixture is being sprayed out.

## DIRECTIONS FOR USE IN WHEAT AND BARLEY GREEN FOXTAIL (WILD MILLET) CONTROL

- Prior to RIVAL EC application, seed the crop (Wheat or Barley) into a well-prepared seedbed to a depth of 5-8 cm.
- Apply RIVAL EC immediately **after** seeding and before the crop emerges.
- Application rates:

SOIL TYPE	RATE	COVERAGE
<b>Light Textured Soils:</b> sandy, sandy loam	1.2 L/ha	7.5 ha/jug
<b>Medium Textured Soils:</b> loam, silt loam, silt, sandy clay loam	1.4 L/ha	6.4 ha/jug
<b>Heavy Textured Soils:</b> silty clay loam, silty clay, clay	1.6 L/ha	5.6 ha/jug

- Apply recommended rate of RIVAL EC in a minimum of 110 litres of water per hectare
- Apply RIVAL EC to trash free soil only.
- **Two shallow (2-4 cm) incorporations** with tyne harrows or diamond harrows must be done within 24 hours of RIVAL EC application. Both incorporations should be done at speeds of at least 9 km/h and at right angles to each other. It is best if the first incorporation is done in the same direction as application.
- Green foxtail must germinate in the treatment zone, not below, for it to be controlled.

## RIVAL EC PLUS AVADEx® BW TANK MIX

**WEEDS CONTROLLED:** Green Foxtail (Wild Millet), Wild Oats

**CROPS:** Wheat, Barley, seeded 5-8 cm deep.

### APPLICATION RATES:

CROP	SOIL TEXTURE		
	Light textured soils: sand, sandy loam	Medium textured Soils: loam, silt loam, silt, sandy clay loam	Heavy textured Soils: silty clay loam, silty clay, clay
Wheat	1.2 L/ha RIVAL EC + 3.5 L/ha Avadex BW	1.4 L/ha RIVAL EC + 3.5 L/ha Avadex BW	1.6 L/ha RIVAL EC + 3.5 L/ha Avadex BW
Barley	1.2 L/ha RIVAL EC + 4.25 L/ha Avadex BW	1.4 L/ha RIVAL EC + 4.25 L/ha Avadex BW	1.6 L/ha RIVAL EC + 4.25 L/ha Avadex BW

### APPLICATION:

Apply RIVAL EC plus AVADEx BW as a tank mix immediately **after** seeding and before the Wheat or Barley emerges. Double incorporation to a **shallow** depth (2-4 cm) with tyne or diamond harrows is required within 24 hours of application. The first incorporation should be done in the same direction as application. The second incorporation must be done at right angles to the first. Both incorporations should be done at speeds of at least 9 km/h. INCORPORATION MUST BE ABOVE THE DEPTH OF SEED PLACEMENT.

### CAUTION:

Injury to Wheat or Barley may occur if seeded into a deeply-incorporated layer of RIVAL EC. RIVAL EC will not adversely affect Wheat or Barley if it is applied according to label directions and under the normal growing conditions. Crop injury from RIVAL EC such as delayed maturity or reduced yields may occur if emerging crops are weakened from factors such as improper seeding depth, excessive moisture, cold temperature, seedling disease, poor soil fertility, drought, or saline soils.

### RIVAL EC APPLICATION WITH LIQUID FERTILIZER

For application either before seeding on oilseed and special crops, or after seeding and before crop emergence on Wheat and Barley, RIVAL EC may be mixed with liquid nitrogen fertilizer (e.g. 28-0-0). For application in Wheat or Barley after seeding and before crop emergence, RIVAL EC and liquid nitrogen fertilizer may also be mixed with AVADEx BW. Follow application rates, incorporation instructions, and cautions for normal RIVAL EC applications as per registered crop.

- Add required RIVAL EC directly to liquid nitrogen.
- Mix thoroughly and apply immediately after mixing.
- Agitate mixture before and during application.
- Ensure that RIVAL EC and each addition of the liquid nitrogen fertilizer are compatible prior to tank-mixing.

### COMPATIBILITY TEST

- Measure 500 mL of liquid fertilizer into a container.
- Add 10 mL RIVAL EC
- Cover container and shake well.
- If RIVAL EC remains in suspension for five minutes or greater, the two are compatible. If RIVAL EC settles out quickly it can be re-suspended quickly by shaking; the mixture may be used but **constant and vigorous agitation** will be required before and during application.

## **PART 2: USES IN EASTERN CANADA AND BRITISH COLUMBIA EXCLUDING THE PEACE RIVER REGION ONLY**

### **GENERAL INFORMATION**

RIVAL EC is a specially formulated herbicide for the control of certain annual grassy and broadleaf weeds in Soybeans, Fababeans, Dry Common Beans (Kidney and White only), Black Beans, Peas (field and processing), Crambe, Snapbeans, Lima Beans, Carrots, Turnips (stubble), Forage Rape, Forage Kale, Canola (Rapeseed), Triazine Tolerant Canola (Rapeseed), Sunflower, Strawberries (spring application only), Asparagus, and Tame Mustard; transplants of Tomatoes, Peppers, Brussels Sprouts, Broccoli, Cabbage and Cauliflower; direct seeded Cabbage, Cauliflower, and Alfalfa; ornamentals (woody nursery stock, perennials), and transplanted shelterbelts. RIVAL EC can also be used to control Loose Silky-Bentgrass in Fall Rye and Winter Wheat.

**RIVAL EC herbicide must not be used on any crop for which it is not registered.**

### **DIRECTIONS FOR USE**

#### **DIRECT SEEDED**

- Do not apply to soils which contain more than 15% organic matter such as peat or muck soils.
- Do not apply to wet soils that are subject to excessive flooding.
- Do not apply to soils that are extremely lumpy, cloddy or in poor working condition.
- For maximum weed control and crop tolerance, follow label directions at all times. Read all directions before applying RIVAL EC.

**CAUTION:** Application of RIVAL EC to soils that are subject to flooding (standing water for more than 3-5 days) may result in reduced weed control. This reduction in weed control may occur if the soils are flooded between the time of RIVAL EC application and crop maturity (harvest). If these soils are flooded for a considerable period of time (3 weeks or more), the result may be no weed control at all.

When used according to label directions, RIVAL EC will not damage the treated crop. Weakened emerging crop from factors such as deep planting, excessive moisture, cold temperatures, seedling disease, poor soil fertility, drought, and saline soils may increase the risk of damage from RIVAL EC resulting in a delay in crop maturity and/or reduced yields.

Highly sensitive crops such as Tame Oats, Sugarbeets and small seeded annual grasses (Timothy, Canary Seed Grass, and Creeping Red Fescue) should not be grown in rotation in the year following RIVAL EC application.

### **TRANSPLANTS**

Reductions in crop yield may occur if RIVAL EC is applied to weakened transplants. The precautions for direct seeded crops also apply to transplants. As well, for maximum tolerance of all transplants ensure the following:

- only healthy transplants should be used.
- do not transplant under unfavourable growing conditions such as cool or wet weather.
- follow all label instructions.

## **SUSCEPTIBLE WEEDS**

ANNUAL GRASSES include Wild Oats, Green and Yellow Foxtail (Wild Millet), Barnyard Grass, Persian Darnel, Annual Bluegrass, Crabgrass, Stinkgrass, Bromegrass, Cheat, Fall Panicum, and Goosegrass. Loose Silky-Bentgrass will also be controlled by RIVAL EC in Fall Rye and Winter Wheat.

ANNUAL BROADLEAF WEEDS include Pigweed, Russian Thistle, Lamb's-quarters, Chickweed, Carpetweed, Knotweed and Purslane.

The above weeds will be controlled when RIVAL EC is applied at recommended rates and used as directed. Ensure that all incorporation directions are followed. Some wild oats may escape the RIVAL EC herbicidal action, however the crop competition will effectively suppress the escaped weeds so that little or no competition results with the crop.

## **FOR ALL USES EXCEPT LOOSE SILKY-BENTGRASS CONTROL IN FALL RYE AND WINTER WHEAT:**

### **TIME OF APPLICATION**

RIVAL EC is applied in the spring and before crop or weed emergence. It is incorporated thoroughly into the soil to provide herbicidal action that will control all susceptible weeds. RIVAL EC controls susceptible weeds as they germinate. RIVAL EC does not control established weeds.

### **LAND PREPARATION**

Before applying RIVAL EC, ensure that all emerged and existing weeds have been eliminated through discing or cultivation. For application to stubble fields and trashy soils, thoroughly disc the soils prior to RIVAL EC application to ensure that all crop residues and trash material have been mixed into the soil to a depth of 10-15 cm. Disc implements are preferred for eliminating trash.

### **METHOD OF APPLICATION**

Application should be made in a minimum of 110 litres of water per hectare at a pressure of 200-275 kPa. Apply RIVAL EC uniformly to the soil surface and incorporate within 24 hours after application. Do not apply to lumpy soils. Fill sprayer one-third full of clean water then add the recommended amount of RIVAL EC. Continue the filling operation until required volumes are achieved. Vigorous agitation is required before applying RIVAL EC. Apply with ground equipment only. If possible, incorporate RIVAL EC in the same operation as application.

Susceptible crops in rotation will not be damaged if RIVAL EC is applied uniformly. Avoid over-application. Do not initiate RIVAL EC application until the sprayer is moving.

### **INCORPORATION**

Incorporate with disc implements, rotary tillers or cultivators only. Deep tillage cultivators are not recommended. A tandem disc is recommended for the first incorporation. Do not delay the first incorporation more than 24 hours after RIVAL EC application. The first incorporation should be in the same direction as application.

Both incorporations must be to a depth of 8-10 cm. The second incorporation must be at right angles to the first and can be done anytime prior to planting. Disc implements should be operated at 6-10 km/h and cultivators at 10-13 km/h.

**NOTE:**

- Incorporate RIVAL EC to a depth of only 8-10 cm for maximum weed control and crop tolerance.
- Use a disc implement when incorporating RIVAL EC on stubble or trashy soils.
- Cultivators should only be used for RIVAL EC incorporation when soils are in good working condition.
- Do not incorporate RIVAL EC by using hoe drills, rod weeders, or harrows.

**CAUTION:** Do not graze the treated crops or cut for hay; there are not sufficient data available to support such use.

**“See Directions for Use”**

**Application Rates in Litres per Hectare  
(All Uses Except Silky-Bentgrass Control)**

CROPS	SOIL TEXTURE			REMARKS
	Light sand, sandy loam	Medium loam, silt loam, silt, sandy clay loam	Heavy silty clay loam, clay loam, silty clay, clay	
Carrots, Fababeans, Tame Mustard, Dutch White Stubble Turnip, Crambe, Canola (Rapeseed), Forage Rape, Forage Kale, triazine tolerant Canola (Rapeseed), Sunflower, Dry Common Beans (White and Kidney), Snapbeans, Soybeans, Black Beans	1.2 L	1.6 L	2.3 L	RIVAL EC may be applied and incorporated from 3 weeks before planting up to the time of planting.
Lima Beans, Peas (field and processing)	1.2 L	1.2 L	1.6 L	RIVAL EC may be applied and incorporated from 3 weeks before planting up to the time of planting.
<b>Direct Seeded:</b> Alfalfa, Cabbage Cauliflower,	1.2 L	1.6 L	2.3 L	RIVAL EC may be applied and incorporated from 3 weeks before planting up to the time of planting. Cole crops have shown poor tolerance to RIVAL EC in that they may be stunted or growth may be thinned out.
<b>Transplants:</b> Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Peppers, Tomatoes	1.2 L	1.6 L	2.3 L	RIVAL EC may be applied and incorporated from 3 weeks before planting up to the time of planting.
<b>Ornamentals:</b> Established Woody Nursery Stock	1.2 L	1.6 L	2.3 L	Spray directly on to the soil. Caution must be taken to incorporate as close as possible to the plants.
<b>Ornamentals:</b> Transplants of Woody Nursery Stock and Perennials	1.2 L	1.6 L	2.3 L	RIVAL EC may be applied and incorporated from 3 weeks before planting up to the time of planting.
Strawberries (spring application only)	1.2 L	1.6 L	2.2 L	RIVAL EC may be applied and incorporated from 3 weeks before planting. The first incorporation must be within 24 hours of application. Use 2.2 L/ha maximum on strawberries.
Asparagus	2.0 L	3.0 L	4.0 L	Use only on asparagus that has been established for at least 3 years.

DO NOT APPLY RIVAL EC TO AJUGA, MYRTLE, AND PACHYSANDRA ORNAMENTALS AS INJURY MAY RESULT.

DO NOT APPLY RIVAL EC TO TURNIPS OR MUSTARD ON SANDY SOILS.

**NOTE:** RIVAL EC must be incorporated within 24 hours of application.

## **RIVAL EC IN RAPESEED (CANOLA, INCLUDING TRIAZINE TOLERANT CANOLA)**

RIVAL EC may be applied in all canola varieties alone as a pre-plant incorporated spring application.

DO NOT TANK-MIX RIVAL EC WITH SENCOR® IN ANY CANOLA EXCEPT TRIAZINE TOLERANT CANOLA. CROP DAMAGE WILL OCCUR IF THIS TANK-MIX IS USED IN ANY OTHER CANOLA VARIETY.

The following rates are to be used:

### **Rates LITRES/HA or Kilograms/ha**

Treatment	Soil Texture		
	Light	Medium	Heavy
RIVAL EC	1.2 L	1.6 L	2.3 L
Sencor 500 F (T.T.C.)	0.55 L	0.7 L	0.85 L
Sencor 75 DF (T.T.C.)	0.375 Kg	0.475 Kg	0.55 Kg

Refer to the Sencor label for additional instructions and precautions in TRIAZINE TOLERANT CANOLA.

## **SOYBEANS**

### **RIVAL EC/LEXONE®, RIVAL EC/SENCOR**

#### **WEEDS CONTROLLED:**

ANNUAL GRASSY WEEDS: Crabgrass, Green and Yellow Foxtail, Barnyard Grass, Wild Oats, Stinkgrass, Annual Bluegrass, Cheat, Goosegrass, Persian Darnel, Bromegrass and Fall Panicum.

BROADLEAF WEEDS: Pigweed, Lamb's-quarters, Purslane, Knotweed, Chickweed, Carpetweed, Russian Thistle, Wild Mustard, Smartweed, Velvetleaf, Common Ragweed, Cocklebur (partial control only), Jimson Weed and other broadleaf weeds.

### **Broadcast Rates - LITRES/HA or KILOGRAMS/HA**

Soil Texture-(1)	RIVAL EC Litres	LEXONE L Litres	LEXONE DF Kilograms	SENCOR 500F Litres	SENCOR 75DF Kilograms
<b>Light:</b> sandy loam (2), loamy sand (3)	1.2 L	-	-	0.85 L	0.55 Kg
<b>Medium:</b> loam, silt loam, silt, sandy clay loam	1.6 L	0.85 L	0.55 Kg	1.1 L	0.75 Kg
<b>Heavy:</b> silty clay, silty clay loam, clay loam, clay	2.3 L	1.1 L	0.7 Kg	1.1 L	0.75 Kg

1. In fields with different soil types, injury is possible on the lighter soil areas when the rate for heavier soils is used.
2. These soils may be classified as medium in some areas.
3. Soils with less than 1% organic matter should not be treated.

**NOTE:** Ensure proper and uniform application for maximum crop tolerance and weed control. Tank mixes of RIVAL EC and Lexone or Sencor may be applied up to 10 days before planting. AVOID OVER-APPLICATION. ENSURE INCORPORATION INSTRUCTIONS ARE FOLLOWED. While filling the spray tank with clean water, add the required amount of Lexone or Sencor. Agitate vigorously and continue to fill the spray tank to the desired level of water. Add the required amount of RIVAL EC. Continuous agitation is required until the mixture is sprayed out.

A weakened crop from those factors listed in "Directions For Use" may increase the possibility of RIVAL EC damage and cause a delay in crop maturity and/or reduced yields.

DO NOT USE RIVAL EC/Lexone OR RIVAL EC/Sencor ON APACHE, BARON, MAPLE AMBER, OR MAPLE RIDGE VARIETIES. (See Lexone and Sencor labels for other restricted varieties.)

DO NOT FEED CROP MATERIAL TREATED WITH RIVAL EC/LEXONE OR RIVAL EC/SENCOR TO LIVESTOCK.

DO NOT APPLY TO WATER USED FOR DRINKING PURPOSES OR FISHERY PRODUCTIVE PURPOSES.

DO NOT APPLY TO NON-TARGET PLANTS.

### **RIVAL EC FOLLOWED BY AFOLAN® F (SPLIT APPLICATION) IN SOYBEANS**

RIVAL EC may be applied and incorporated before seeding soybeans as directed on this label. This may be followed by an application of Afolan F applied as a band or broadcast spray after planting soybeans. This split application will provide for very broad spectrum weed control.

The following rates of RIVAL EC and Afolan F should be used:

#### **Rates - Litres/hectare**

Treatment	Soil Texture		
	Light	Medium	Heavy
RIVAL EC	1.2 L	1.6 L	2.3 L
Afolan F, 480 gal/L	-	1.9 L	2.5 L

Refer to the Afolan F label for additional instructions.

## **RIVAL EC FOLLOWED BY AFESIN® 2EC (SPLIT APPLICATION) IN DRY COMMON BEANS (WHITE AND KIDNEY)**

RIVAL EC may be applied in dry common beans as a pre-plant incorporated treatment followed by Afesin 2EC as a pre-emerge treatment.

The following rates of application should be used:

### **Rates - Litres/hectare**

Treatment	Soil Texture		
	Light	Medium	Heavy
RIVAL EC (pre-plant incorporated)	1.2 L	1.6 L	2.3 L
Afesin 2EC	3.75-5.5 L	3.75-5.5 L	3.75-5.5 L

Use these rates of Afesin 2EC if preceded by RIVAL EC. A higher rate of Afesin 2EC is required if used alone. See Afesin 2EC label for additional instructions.

## **TOMATOES**

RIVAL EC may be applied before planting tomatoes to control many annual grassy weeds and broadleaf weeds. RIVAL EC may also be applied as a tank mix with Sencor 500 F to control a wider range of broadleaf weeds. Sencor 500 F may also be applied as a post-emergent application in tomatoes to control weed escapes. This application can be made if RIVAL EC was applied before planting. The following rates of application should be used.

### **Rates - Litres/hectare**

Treatment	Soil Texture		
	Light	Medium	Heavy
Pre-Plant Incorporated RIVAL EC	1.2 – 1.6 L	2.3 L	-
Sencor 500 F (tank-mix with RIVAL EC)	0.5-0.6 L	0.75-1.1 L	1.2-1.4 L
Post-Emergence Sencor 500 F (applied alone)	0.85 L	1.1 L	1.2-1.4 L

Refer to the Sencor 500 F label for additional instructions and precautions.

## **LOOSE SILKY-BENTGRASS CONTROL IN FALL SEEDED CEREALS (WHEAT AND RYE ONLY)**

### **GROWN IN ROTATION WITH FLUE-CURED TOBACCO**

- Apply RIVAL EC after seeding the cereal crop but before crop emergence.
- Apply RIVAL EC at 0.8-1.2 L/ha. Use the higher rate for heavier soil textures. Apply in a minimum of 110 L/ha of water.
- Incorporate RIVAL EC to a shallow depth (2.5-5.0 cm), immediately after application (within 24 hours) by turning harrows over and harrowing twice at right angles. If field debris is a potential problem, harrow once only with harrows set for maximum penetration. ENSURE DEPTH OF INCORPORATION IS LESS THAN SEEDING DEPTH.

## **PART 3: RIVAL EC APPLICATION ON DRY BULK FERTILIZER**

### **GENERAL**

Dry bulk fertilizer (EXCEPT NITRATE FERTILIZERS) may be impregnated with RIVAL EC herbicide. Application may be made in the fall or spring to registered crops pre-plant incorporated. Application of the fertilizer impregnated with RIVAL EC must be made as soon as possible. For rates and times of application for various crops refer to the application and rate charts on this label.

This product label must be consulted for precautions, warnings, restrictions, rotation crops and detailed directions regarding use rates, soil texture, application instructions and incorporation techniques. Compliance with the Fertilizer's Act is the responsibility of the company selling herbicide/fertilizer combinations.

### **MIXING AND BLENDING**

A minimum of 200 Kg/ha of dry fertilizer impregnated with RIVAL EC at recommended rates must be applied. Mix and blend the dry fertilizer and RIVAL EC in a rotary fertilizer blender. The nozzles used to spray the RIVAL EC on the fertilizer should be situated to provide uniform spray coverage. Allow for sufficient blending time to ensure uniform coverage of the fertilizer with this product. If the fertilizer-herbicide mixture is too wet to allow for uniform application, the use of a highly absorptive material such as diatomaceous earth or finely powdered clay is recommended. Enough absorptive material should be added to ensure a free-flowing mixture.

**NOTE:** Higher rates of fertilizer may be required to ensure that mixture is not too wet especially when higher rates of RIVAL EC are used. The following rate chart indicates the amount of RIVAL EC required per tonne of fertilizer.

<b>DRY FERTILIZER APPLICATION RATE:</b>		<b>RIVAL EC Rate L/ha L of RIVAL EC/tonne</b>			
<b>Kg/ha</b>	<b>ha/tonne</b>	<b>1.6</b>	<b>2.2</b>	<b>2.8</b>	<b>3.4</b>
200	5.0	8.0	11.0	14.0	17.0
210	4.76	7.6	10.5	13.3	16.2
220	4.55	7.3	10.0	12.7	15.5
230	4.35	7.0	9.6	12.2	14.8
240	4.17	6.7	9.2	11.7	14.2
250	4.0	6.4	8.8	11.2	13.6
260	3.85	6.2	8.5	10.8	13.1
270	3.7	5.9	8.1	10.4	12.6
280	3.55	5.7	7.8	9.9	12.1
290	3.45	5.5	7.6	9.7	11.7
300	3.3	5.3	7.3	9.2	11.2

### **APPLICATION**

Spread the fertilizer impregnated with RIVAL EC immediately after blending is completed. Ensure that the material is applied uniformly to the soil surface using a properly calibrated applicator. When using spin spreaders a 100% overlap is recommended to ensure even distribution. Spin applicators should be calibrated to apply one-half the desired rate per hectare and application overlapped by doubling back to cover one-half of the previous swath. Dribble spreaders must be calibrated with the impregnated fertilizer as flow rate will be slower than those realized with pure dry fertilizer.

## **INCORPORATION**

Follow normal RIVAL EC incorporation recommendations. FOR BEST RESULTS DELAY THE SECOND INCORPORATION FOR AT LEAST 3 DAYS FOLLOWING THE FIRST.

### **CAUTIONS:**

1. To prevent contamination, ensure that the next 2 (two) blended batches of fertilizer are used only on those crops for which trifluralin is registered.
2. Do not impregnate RIVAL EC or any other herbicide on nitrate fertilizers (ammonium, potassium, sodium, calcium). The combination of RIVAL EC with these fertilizers may result in an explosion.

## **PART 4:**

### **SAFETY, STORAGE, DISPOSAL AND OTHER INFORMATION**

#### **Resistance Management Recommendations**

For resistance management, RIVAL EC is a Group 3 herbicide. Any weed population may contain or develop plants naturally resistant to RIVAL EC and other Group 3 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 RIVAL EC or other Group 3 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 Nufarm Agriculture Inc. at 1-800-868-5444 or at [www.nufarm.ca](http://www.nufarm.ca).

## **PRECAUTIONS**

**KEEP OUT OF REACH OF CHILDREN.** POTENTIAL SKIN SENSITIZER. MAY CAUSE EYE DAMAGE. AVOID CONTACT WITH EYES, SKIN OR CLOTHING. Avoid breathing spray mist. Use protective eye equipment. Use only for recommended purposes and at recommended rates. Avoid contamination of foodstuffs, feeds, seeds, fish ponds and water supplies.

All handlers must wear a long-sleeved shirt and long pants. In addition, wear chemical-resistant gloves, during mixing/loading, repair and clean up activities. DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at: [www.croplife.ca](http://www.croplife.ca).

This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. DO NOT contaminate these systems through direct application, disposal of waste or cleaning equipment.

## **DO NOT APPLY BY AIR.**

### **ENVIRONMENTAL HAZARDS**

TOXIC to aquatic organisms and 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 the 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.

### **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 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.

**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.

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.

### **EMERGENCY TELEPHONE NUMBERS:**

For spills or transportation accidents, Chemtrec, 1-800-424-9300.

For health or environmental emergencies, ProSAR, 1-877-325-1840.

For product and use information, Nufarm Agriculture Inc., 1-800-868-5444.

## **STORAGE**

DO NOT store RIVAL EC where temperature may go below 5°C. If stored for one year or longer, shake well before using. If product is frozen, bring the contents to 20°C for 24 hours and shake well before using. Store the tightly closed container away from feeds, seeds, fertilizers, plants and foodstuffs. Keep in original container during storage.

## **RECYCLABLE CONTAINER 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.

## **DISPOSAL (FOR RETURNABLE CONTAINERS)**

Do not reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

## **DISPOSAL (FOR RETURNABLE-REFILLABLE CONTAINERS)**

For disposal, this 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.

## **DISPOSAL OF UNUSED, UNWANTED PRODUCT**

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 cleanup 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. The user assumes the risk to persons or property that arises from any such use of this product.

2009-4249

A-September 14, 2010



