(Container Label)



#### Lumiscend™ Pro **Fungicide Seed Treatment**

GROUP	4	FUNGICIDE
GROUP	7	FUNGICIDE
GROUP	22	FUNGICIDE

**COMMERCIAL** SUSPENSION

**ACTIVE INGREDIENTS:** Ethaboxam 57.5 g/L

> Inpyrfluxam 38.3 g/L Metalaxyl 30.7 g/L

Contains 1,2-benzisothiazolin-3-one at 0.0618% as a preservative.

REGISTRATION NUMBER: 34421 PEST CONTROL PRODUCTS ACT

#### **CAUTION**



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

NET CONTENTS: 130 ml to Bulk

**Corteva Agriscience Canada Company** Suite 240, 115 Quarry Park Rd. SE

Calgary, AB T2C 5G91-800-667-3852

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## PRECAUTIONS KEEP OUT OF REACH OF CHILDREN

Harmful if swallowed

#### **FIRST AID**

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

**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 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.

**IF ON SKIN OR CLOTHING**: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 minutes. Call a poison control center or doctor for treatment advice.

#### TOXICOLOGICAL INFORMATION

No specific antidote is available. Treat the patient symptomatically.

#### **ENVIRONMENTAL PRECAUTIONS**

This pesticide is toxic to aquatic organisms, birds, small wild mammals and non-target terrestrial plants.

#### **STORAGE**

Keep pesticide in its original container. Store in a cool place. Do not store in direct sunlight. Protect from freezing temperatures. Store this product away from food or feed.

#### **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.

See full booklet label for further restrictions and precautions.

(Booklet)



## **Lumiscend™ Pro**Fungicide Seed Treatment

GROUP	4	FUNGICIDE
GROUP	7	FUNGICIDE
GROUP	22	FUNGICIDE

## COMMERCIAL SUSPENSION

Lumiscend™ Pro Fungicide Seed Treatment is a fungicide seed treatment product providing contact and systemic control or suppression of labeled seed and seedling diseases.

ACTIVE INGREDIENTS: Ethaboxam 57.5 g/L

Inpyrfluxam 38.3 g/L Metalaxyl 30.7 g/L

Contains 1,2-benzisothiazolin-3-one at 0.0618% as a preservative.

REGISTRATION NUMBER: 34421 PEST CONTROL PRODUCTS ACT

# CAUTION

#### **POISON**

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

For use with closed transfer commercial seed treaters (facilities and mobile treaters). Closed transfer includes closed mixing, loading, calibrating and closed treatment equipment.

This product contains no colourant. An appropriate colourant must be added when the product is applied to seed, according to regulations pertaining to the "Seeds Act".

NET CONTENTS: 130 ml to Bulk

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## PRECAUTIONS KEEP OUT OF REACH OF CHILDREN

Harmful if swallowed

Wash hands thoroughly with soap and water after handling Remove contaminated clothing and wash before reuse.

- Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/personal protective equipment (PPE) immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product.
- Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.

Apply only in a way that this product will not contact workers or other persons, either directly or through drift. Only workers wearing the personal protective equipment may be in the area where treating, bagging, sewing and/or stacking is occurring.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Scenario	Tasks	PPE/Engineering Controls
For Commercial Seed Treatment (including mobile treaters)	Closed transfer system only	Closed transfer includes closed mixing, loading, calibrating, and closed treatment equipment. No open transfer is permitted.
	Treating	During mixing, loading, treating, calibrating, bagging, sewing, and stacking, wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes. In addition, when bagging or sewing bags of treated seeds or when transferring seeds to a storage bin, workers must wear a NIOSH-approved N95 filtering face piece respirator (dust mask) that is properly fit tested.
	Clean-up, maintenance and repair activities	During clean-up, maintenance and repair activities, wear chemical-resistant coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes.
For Handling and Planting Treated Seeds	Handling treated seeds and planting with a closed-cab tractor	When handling and planting treated seeds, wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes. A closed cab tractor is required when planting treated seed. Gloves are not required within a closed-cab tractor.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **FIRST AID**

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

**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 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

**IF ON SKIN OR CLOTHING**: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 minutes. Call a poison control center or doctor for treatment advice.

#### **TOXICOLOGICAL INFORMATION**

No specific antidote is available. Treat the patient symptomatically.

#### **ENVIRONMENTAL PRECAUTIONS**

This pesticide is toxic to aquatic organisms, birds, mammals and non-target terrestrial plants.

Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned-up from the soil surface.

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**

Keep pesticide in its original container. Store in a cool place. Do not store in direct sunlight. Protect from freezing temperatures. Store this product away from food or feed.

#### **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.

#### **USE INFORMATION**

Lumiscend Pro (containing ethaboxam metalaxyl, and inpyrfluxam) is a fungicide seed treatment product offering both contact and systemic activity in providing broad-spectrum seed and seedling protection against labeled seedling diseases. The fungicide components in Lumiscend Pro are effective for protection against *Pythium spp., Phytophthora sojae, Aphanomyces euteiches* and *Rhizoctonia solani.* 

#### **APPLICATION DIRECTIONS**

Thoroughly shake product before opening container.

Lumiscend Pro must be used only in accordance with use instructions on this label utilizing mechanical, slurry or mist-type seed treating equipment, provided that the equipment can be calibrated to accurately and uniformly apply the product to seed. This product is for commercial application. Do not apply this product in a hopper-box or planter-box at planting time. Always mix product thoroughly before use.

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

#### **TANK MIXTURES**

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 Corteva Agriscience Canada Company at 1-800-667-3852 or <a href="www.corteva.ca">www.corteva.ca</a> for information before applying any tank mix that is not specifically recommended on this label.

Accurate application of Lumiscend Pro to seed is required for best performance. Thoroughly mix Lumiscend Pro in the desired seed slurry mixture, prior to application to seed. Pre-test tank mixtures with other seed treatment products to evaluate formulation compatibility and to ensure proper physical compatibility of products.

#### **USE RESTRICTIONS**

- Do not use treated seed for food, feed, or oil processing.
- Due to seed quality conditions beyond the control of Corteva Agriscience Canada Company, no claims are made to guarantee germination of carry-over seed.

#### LABELLING OF TREATED SEED

All bags containing treated seed must be labeled or tagged as follows:

- This seed has been treated with Lumiscend Pro containing ethaboxam, metalaxyl, and inpyrfluxam.
- Do not use for feed, food or oil processing.
- Excess seed may be used for ethanol production only if (1) by-products are not used for livestock feed and (2) no measurable residues of pesticide remain in ethanol by-products that are used in agronomic practices.
- Store away from feeds and other foodstuffs.
- Wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes when handling and planting treated seeds. A closed cab tractor is required when planting treated seeds. Gloves are not required within a closed-cab tractor.
- Dispose of all excess treated seed. Left over treated seed may be double-sown around the headland or buried away from water sources in accordance with local requirements. Do not contaminate water bodies when disposing of planting equipment washwaters.
- Dispose of seed packaging in accordance with local requirements.
- Toxic to birds and small wild mammals. Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned-up from the soil surface

The following table provides use rates of Lumiscend Pro by labeled crop, with disease protection guidelines.

CORN (SWEET AND FIELD); POPCORN			
Diseases Controlled	Application Rate		
Seed decay, seedling blight and damping off caused by <i>Rhizoctonia</i>	130 mL/100 kg seed*		
solani	*The following active ingredient components will be applied: ethaboxam: 7.5 g a.i./100 kg seed		
Seed rot/pre-emergence damping-off	metalaxyl: 4 g a.i./100 kg seed		
caused by <i>Pythium spp.</i> , including metalaxyl-resistant <i>Pythium spp.</i>	inpyrfluxam: 5 g a.i./100 kg seed		
	<b>Field Corn</b> : Apply 26.6 mL per 80,000 seed (equals 0.042 mg ai/seed) based on 3968 seed/kg count		

<b>Sweet Corn</b> : Apply 18.9 mL per 100,000 seed (equals 0.03 mg ai/seed) based on 6938 seed/kg count
<b>Popcorn:</b> Apply 19.2 mL per 100,000 seed (equals 0.03 mg ai/seed) based on 6742 seed/kg count

#### SEED QUALITY AND STORAGE OF TREATED SEED

Lumiscend Pro: Use proper storage conditions for treated seed. Due to seed quality and seed storage conditions beyond the control of Corteva Agriscience Canada Company, no claims are made to guarantee the germination of carry-over treated seed.

#### RESISTANCE MANAGEMENT RECOMMENDATIONS:

For resistance management, please note that Lumiscend Pro contains Group 4, 7, and 22 fungicides. Any fungal population may contain individuals naturally resistant to Lumiscend Pro and other Group 4, 7, and 22 fungicides. A gradual or total loss of pest control may occur over time if this fungicide is used repeatedly in the same fields. 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 fungicide resistance:

- Where possible, rotate the use of Lumiscend Pro or other Group 4, 7, and 22 fungicides with different chemical groups that control the same pathogens.
- Use tank mixtures with fungicides from a different group that is effective on the target pathogen when such use is permitted.
- Fungicide use should be based on an integrated disease management program that includes scouting, historical information related to pesticide use and crop rotation and considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications.
- Monitor treated fungal populations for resistance development. Notify Corteva Agriscience Canada Company
  if reduced sensitivity of the pathogen to Lumiscend Pro is suspected. If disease continues to progress after
  treatment with this product, do not increase the use rate. Discontinue use this this product, and switch to
  another fungicide with a different site of action, if available.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistancemanagement and/or IPM recommendations for the specific site and pest problems in your area.

Due to the minimal amount of Lumiscend Pro applied to the seed that relocates to the upper parts of the plant and the multiple modes of action, the potential for development of resistance is extremely low. Seed treatments of Lumiscend Pro can therefore be followed by foliar use fungicides containing the same modes of action in accordance with resistance management guidelines as specified on the respective labels.

For further information and to report suspected resistance, contact Corteva Agriscience Canada Company at 1-800-667-3852.

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