

2023-0872
2023-09-29

(Container Label)



Lumiante™

Fungicide Seed Treatment

GROUP	22	FUNGICIDE
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COMMERCIAL SUSPENSION

Lumiante™ is a seed treatment product providing systemic fungicide protection against certain seed and seedling diseases on labelled crops.

ACTIVE INGREDIENT: Ethaboxam.....383 g/L

Contains 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0006 % or 0.0017% or 0.0011% and 2-methyl-4-isothiazolin-3-one at 0.0006% or 0.0004% or 0.0002 % as a preservative

Or

Contains 1,2-benzisothiazolin-3-one at 0.019 % or at 0.046 % as a preservative

REGISTRATION NUMBER: 34167 PEST CONTROL PRODUCTS ACT

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.

NET CONTENTS: 50 ml to Bulk

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".

Corteva Agriscience Canada Company

2450, 215 – 2nd Street S.W.

Calgary, Alberta

T2P 1M4

1-800-667-3852

™Trademark of Corteva Agriscience and its affiliated companies.

PRECAUTIONS

Keep treated seeds out of reach of children and animals.

KEEP OUT OF REACH OF CHILDREN.

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

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/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.

Commercial seed treatment facilities

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes or boots during mixing, loading, treating, calibrating, bagging, sewing seed bags, stacking and any other activities involving handling treated seeds. In addition, wear chemical-resistant coveralls during clean-up, maintenance and repair.

Planting Treated Seeds

Wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during planting and handling of treated seeds. A closed cab tractor is required when planting treated seed. Gloves are not required within the closed cab.

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. 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 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 centre or doctor for treatment advice.

TOXICOLOGICAL INFORMATION

Contains petroleum distillates. Vomiting may cause aspiration pneumonia. No specific antidote is available. Treat the patient symptomatically.

ENVIRONMENTAL PRECAUTIONS

Toxic to aquatic organisms. Treated seed is toxic to birds and small, wild mammals.

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.

STORAGE

Store this product away from food and feed. Store in a cool place. Do not store in direct sunlight. Protect from freezing temperatures.

DISPOSAL

RECYCLABLE CONTAINER

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.

RETURNABLE CONTAINER

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

REFILLABLE CONTAINER

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.

NON-RECYCLABLE/RETURNABLE/REFILLABLE CONTAINER

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
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5. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

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NOTICE TO USER: This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

(Booklet)



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Commercial seed treatment facilities

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MODE OF ACTION

Lumiante contains ethaboxam, which is a Group 22 fungicide as classified by the Fungicide Resistance Action Committee (FRAC). Its mode of action is the inhibition of cell division.

GENERAL INFORMATION

Lumiante is a systemic fungicide seed protection product for use on listed crops. The active ingredient, ethaboxam, provides protection against the Oomycete class of water moulds. Lumiante controls seed rot/pre-emergence damping-off caused by *Pythium* spp. early-season root rot caused by *Phytophthora sojae*, and suppression of early-season root rot caused by *Aphanomyces euteiches*. For best results, use Lumiante combined with other fungicide seed treatments to broaden the spectrum of activity. Fungicide combinations applied to seed offer a wider spectrum of activity against seed and seedling diseases impacting plant stand establishment and seedling health.

DIRECTIONS FOR USE

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

Calibrate seed treatment equipment prior to application of Lumiante to assure proper application rate is achieved. Consult with the seed treatment equipment manufacturer for guidance on the operation and proper calibration of the treating equipment, as non-uniform, inaccurate seed coverage may result in suboptimal insect or disease protection.

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 www.corteva.ca for information before applying any tank mix that is not specifically recommended on this label.

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

LABELLING OF TREATED SEED

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

- This seed was treated with a product containing the active ingredient ethaboxam.
- Do not use treated seed for feed, food or oil processing.
- Store away from feeds and other foodstuffs.
- Wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during planting and handling of treated seeds.
- A closed cab tractor is required when planting treated seed. Gloves are not required within the closed cab.
- This product is toxic to aquatic invertebrates, oysters and shrimp.
- 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.
- Dispose of seed packaging in accordance with local requirements.
- Cover or incorporate spilled treated seeds.
- 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.

RECOMMENDED APPLICATION

CORN (SWEET AND FIELD); POPCORN	
Diseases Controlled	Application Rate
Seed rot/pre-emergence damping-off caused by <i>Pythium</i> spp.	<p style="text-align: center;">13 – 19.6 (5-7.5 g ai/100 kg seed)</p> <p>Field Corn: To deliver 5 g ai/100 kg seed, apply 3 mL per 80,000 seed (equals 0.0141 mg ai/seed) based on 3524 seed/kg (1600 seed/lb) count</p> <p>Sweet Corn: To deliver 5 g ai/100 kg seed, apply 2 mL per 100,000 seed (equals 0.0072 mg ai/seed) based on 6938 seed/kg (3150 seed/lb) count</p> <p>Popcorn: To deliver 5 g ai/100 kg seed, apply 2 mL per 100,000 seed (equals 0.0074 mg ai/seed) based on 6742 seed/kg (3061 seed/lb) count</p>

SOYBEAN	
Diseases Controlled	Application Rate (mL/100 kg seed)
<p>Seed rot/pre-emergence damping-off caused by <i>Pythium</i> spp.</p> <p>Early season root rot caused by <i>Phytophthora sojae</i></p> <p>Early season root rot caused by <i>Aphanomyces euteiches</i> (suppression only)</p>	<p style="text-align: center;">19.6-39.1 (7.5-15 g ai/100 kg seed)</p> <p>Soybean: To deliver 7.5 g ai/100 kg seed, apply 4.4 mL per 140,000 seed (equals 0.0121 mg ai/seed) based on 6167 seed/kg (2800 seed/lb) count</p>

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.

SEED QUALITY AND STORAGE OF TREATED SEED

- Laboratory and field studies have shown that Lumiante applied to seed will not adversely affect germination.
- Due to seed quality conditions beyond the control of Corteva Agriscience Canada Company, no claims are made to guarantee germination of carry-over seed. Treatment of mechanically scarred or damaged seed, or of seed known to be of low germ, low vigour and poor quality is not recommended.
- Treatment of highly mechanically damaged seed, or seed of known low vigour and poor quality, may result in reduced germination and/or reduction of seed and seedling vigour. Treat and conduct germination tests on a small portion of seed before committing the total seed lot to a selected chemical treatment. Due to seed quality conditions beyond the control of Corteva Agriscience Canada Company, no claims are made to guarantee germination of carry-over seed.

SEEDING EQUIPMENT

Lumiante fungicide-treated seeds may not flow through seeding equipment at the same rate as other seed treatment products or untreated seed. Re-calibration of seeding equipment is recommended before planting seed treated with Lumiante to ensure proper planting rate in the field.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, Lumiante contains a Group 22 fungicide. Any fungal population may contain individuals naturally resistant to Lumiante and other Group 22 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are 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 Lumiante with different chemical groups that control the same pathogens.
- Use tank mixtures with fungicides from a different group that are 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.
- Monitor treated fungal populations for resistance development. Notify Corteva Agriscience Canada Company if reduced sensitivity of the pathogen to Lumiante is suspected. If disease continues to progress after treatment with this product, do not increase the use rate. Discontinue use of 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 resistance-management and/or IPM recommendations for specific crops and pathogens.

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

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