

GROUP 28 INSECTICIDE

Lumiderm™ Insecticide Seed Treatment

SUSPENSION

FOR SALE FOR USE ON CANOLA, RAPESEED, OILSEED MUSTARD AND SOYBEANS

COMMERCIAL-AGRICULTURAL

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

ACTIVE INGREDIENT: Cyantraniliprole 625 g/L

Contains 5-Chloro-2-methyl-2H-isothiazol-3-one at 0.00056% and 2-Methyl-2H-isothiazol-3-one at 0.00019% as a preservative.

REGISTRATION NO 30894 PEST CONTROL PRODUCTS ACT

NET CONTENTS: 1 L -BULK

Special Use Restrictions

This product contains no colourant. An appropriate colourant must be added when this product is applied. Regulations pertaining to the SEEDS ACT must be strictly adhered to when using this product. Seed must be conspicuously coloured at the time of treatment.

Application to canola, rapeseed, and oilseed mustard must be completed by commercial treaters (facilities and mobile treaters) with closed transfer systems only. Application to soybeans in commercial facilities must be completed with closed transfer systems only. Closed transfer includes closed mixing, loading, calibrating, and closed treatment equipment only.

On-farm seed treatment is permitted for soybean only. Open transfer of Lumiderm is permitted for the onfarm treatment of soybeans only.

Corteva Agriscience Canada Company

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PRECAUTIONS

- KEEP OUT OF REACH OF CHILDREN.
- Workers involved in the clean-up of seed treating equipment must wear chemical-resistant coveralls
 over a long-sleeved shirt and long pants, chemical resistant gloves, goggles or a face shield,
 chemical-resistant footwear, and a NIOSH-approved N95 (minimum) filtering facepiece respirator
 (dust mask) that is properly fit tested.
- Workers (treaters, baggers, sewers, stackers and forklift drivers) must wear a long-sleeved shirt, long pants, chemical-resistant gloves, sock and shoes. For good hygiene practice, where dust handling systems are not in use, it is recommended to wear a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested.
- Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If
 no such instructions for washables are available, use detergent and hot water. Keep and wash PPE
 separately from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
 Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Do not use treated seed for food, feed, or oil processing.
- Follow best management practices to help minimize dust exposure to pollinators during planting of treated seed; refer to the complete guidance "Pollinator Protection: reducing risk from treated seed" on the Health Canada website (www.healthcanada.gc.ca/pollinators).

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 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.

TOXICOLOGICAL INFORMATION: Treat symptomatically.

ENVIRONMENTAL HAZARDS

- Toxic to aquatic organisms.
- Toxic to bees. This product is systemic. However bees are unlikely to be exposed to product residues in
 pollen and/or nectar resulting from seed treatment applications. When this product is applied and used
 according to label directions, risk to bees is expected to be negligible.
- **DO NOT** contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

GENERAL INFORMATION

Lumiderm[™] Insecticide Seed Treatment is a flowable suspension that is applied as a seed treatment for early season protection from flea beetle feeding damage for 28 to 35 days and early season protection from cutworm feeding damage in canola, rapeseed and oilseed mustard.

Lumiderm Insecticide Seed Treatment also provides a reduction of feeding damage from soybean aphid and bean leaf beetle in soybeans for 28 to 35 days and reduction of early season feeding damage to soybeans from seedcorn maggot, Japanese beetle, European and masked chafers, wireworms and cutworms.

DIRECTIONS FOR USE

This product contains no colourant. An appropriate colourant must be added when this product is applied. Regulations pertaining to the SEEDS ACT must be strictly adhered to when using this product. Seed must be conspicuously coloured at the time of treatment.

CANOLA, RAPESEED, OILSEED MUSTARD

| SITE | PEST | RATE mL of Lumiderm Insecticide Seed Treatment per 100 kg seed | SPECIFIC DIRECTIONS |
|--|--|--|---|
| CANOLA, RAPESEED, OILSEED MUSTARD | Flea beetles | 960 to 1600 | The application rates for flea beetles will also provide early season protection from cutworm feeding damage. |
| | Cutworms | 480 to 960 | Use the higher rates in areas with high pest pressure, or where extended early season control is required. |
| Restrictions | Lumiderm Insecticide Seed Treatment is for use in commercial seed treatment (facilities and mobile treaters) using a closed transfer system only. It is not for use in on-farm treating systems such as hopper-box or slurry-box applications just prior to planting. DO NOT use open transfer systems Apply only in areas with adequate ventilation or in areas that are equipped to remove mist or dust. | | |

SOYBEANS

| SITE | PEST | RATE of Lumiderm Insecticide Seed Treatment per seed | SPECIFIC DIRECTIONS |
|--------------------------|---|--|--|
| Soybean (Glycine max) | Soybean Aphid Bean Leaf Beetle | 0.075 to 0.200 mg ai/ seed | Use the higher rates in areas with high pest pressure, or where extended early season control is required. |
| | Seedcorn Maggot (Delia platura) Japanese Beetle (Popillia japonica) European Chafer (Amphimallon majalis) Masked Chafers (Cyclocephala spp.) Wireworms (Elateridae) | 0.0375 to 0.125 mg ai/seed | Use the higher rates in areas with high pest pressure, or where extended early season control is required. |

| | Cutworms | 0.0375 to 0.075 mg ai/seed | Use the higher rates in areas with high pest pressure, or where extended early season control is required |
|--------------|---|-------------------------------|---|
| Restrictions | Commercial Facilities Lumiderm Insecticide Seed Treatment is for use in commercial seed treatment facilities using a closed transfer systems only. DO NOT use open transfer systems. Apply only in areas with adequate ventilation or in areas that are equipped to remist or dust. On-Farm On-farm seed treatment is permitted for soybean only. Open transfer of Lumiderm is permitted for the on-farm treatment of soybeans only. | | or in areas that are equipped to remove |

Do not make a subsequent foliar application of any Group 28 insecticide for a minimum of 60 days after planting seed treated with Lumiderm Insecticide Seed Treatment.

TANK MIX COMBINATIONS WITH COMMERCIAL SEED TREATMENTS FOR USE ON CANOLA, RAPESEED AND OILSEED MUSTARD ONLY

Lumiderm Insecticide Seed Treatment may be tank mixed with Prosper^{EverGol} Seed Treatment, Helix Xtra Seed Treatment or Helix Vibrance Seed Treatment at labelled rates for early season control of flea beetles, early season protection from cutworm feeding damage, and control of diseases on the recommended tank mix partner labels.

| SEED TREATMENT | RATE (mL product per 100 kg seed) | TARGET PESTS |
|--|-----------------------------------|--|
| Lumiderm Insecticide | 640 | Cutworms |
| Seed Treatment | | Flea beetles Seed and seedling diseases listed on tank |
| + | | mix partner labels |
| Prosper ^{EverGol} Seed Treatment | + | |
| | 1400 | |
| OR | | |
| Helix Xtra Seed | OR | |
| Treatment | 1500 | |
| OR | 1500 | |
| Helix Vibrance Seed | OR | |
| Treatment | 1500 | |

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.

Seed Storage

Field and laboratory tests have demonstrated that application of Lumiderm Insecticide Seed Treatment to canola, rapeseed, mustard and soybean seed will not negatively affect germination. However, 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 seed.

Treatment of damaged seed, or seed known to be of low vigour and poor quality, may result in reduced germination and/or seed and seedling vigour. In cases where seed quality is unknown, treat a small portion of the seed with Lumiderm Insecticide Seed Treatment and confirm acceptable germination, prior to treating the entire seed lot.

MIXING INSTRUCTIONS

Dilute in a sufficient volume to obtain thorough, uniform coverage.

Polymers, colourants, and other additives should be tested for compatibility and seed safety prior to use in combination with Lumiderm Insecticide Seed Treatment.

ROTATIONAL CROP RESTRICTIONS

Recommended Plant-Back Intervals (PBI) for Rotational Crops

| PBI | CROPS |
|----------|--|
| 0 days | Crop Subgroup 1B (Root Vegetables, except sugar beet); Crop Subgroup 1C (Tuberous and Corm Vegetables); Crop Group 2 (Leaves of Root and Tuber Vegetables); Crop Group 3-07 (Bulb Vegetables); Crop Group 4 (Leafy Vegetables, except <i>Brassica</i> vegetables); Crop Group 5 (<i>Brassica</i> (Cole) Leafy Vegetables); Crop Group 6 (Legume Vegetables, Succulent or Dried); Crop Group 7 (Foliage of legume vegetables); Crop Group 8-09 (Fruiting Vegetables); Crop Group 9 (Cucurbit Vegetables); Crop Subgroup 13-07A (Caneberries); Crop Subgroup 13-07B (Bushberries); Crop Subgroup 13-07H (Low Growing Berries, except Strawberries); Crop Group 20 (Oilseeds); peanuts; strawberries |
| 30 days | Crop Group 1A (Root and Tuber Vegetables); Crop Group 15 (Cereal grains); Crop Group 16 (Forage, fodder, and straw of cereal grains); Crop Group 17 (Grass forage, fodder, and hay); Crop Group 18 (Nongrass animal feeds: Forage, fodder, straw and hay) |
| 365 days | Other crops |

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, please note that Lumiderm Insecticide Seed Treatment contains a Group 28 insecticide. Any insect population may contain individuals naturally resistant to Lumiderm Insecticide Seed Treatment and other Group 28 insecticides. The resistant individuals may dominate the insect population if this group of insecticides is used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance:

- Where possible, rotate the use of Lumiderm Insecticide Seed Treatment or other Group 28 insecticides with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group when such use is permitted.
- Insecticide use should be based on an IPM program that includes scouting and record keeping, and considers cultural, biological and other chemical control practices.
- Monitor treated pest populations for resistance development.

- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Corteva Agriscience Canada Company at 1-800-667-3852.

STORAGE

Store product in original container only, away from other pesticides, fertilizer, food or feed. Not for use or storage in or around the home. Keep container closed. Store this product away from food or feed.

DISPOSAL

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.

FOR RECYCLABLE CONTAINERS

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

- 1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2. Make the empty, rinsed container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

FOR 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).

FOR 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.

FOR DISPOSABLE CONTAINERS

- 1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
- 3. Make the empty, rinsed container unsuitable for further use.
- 4. Dispose of the container in accordance with provincial requirements.

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.

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Label Code: CN-30894-006-E Replaces: CN-30894-005-E

Specimen Label Notes

Address update to Quarry Park