

GROUP	3	4	12	FUNGICIDES
GROUP		4		INSECTICIDE

HELIX® LIQUID SEED TREATMENT

INSECTICIDE AND FUNGICIDE

SUSPENSION

AGRICULTURAL

HELIX® LIQUID SEED TREATMENT is a liquid seed treatment for use on canola and mustard for early season control of flea beetles, seed-borne blackleg, seed-borne *Alternaria*, and the seedling disease complex (damping-off, seedling blight, seed rot and root rot) caused by *Pythium* spp., *Fusarium* spp. and *Rhizoctonia* spp.

This product is for use in areas where low to moderate early season flea beetle pressure is expected.

ACTIVE INGREDIENTS:

Thiamethoxam 10.3%
Difenoconazole 1.24%
Metalaxyl-M and S-isomer..... 0.39%
Fludioxonil..... 0.13%

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

**READ THE ENTIRE LABEL BEFORE USING
KEEP OUT OF THE REACH OF CHILDREN AND PREVENT ACCESS BY UNAUTHORIZED
PERSONNEL**

CAUTION



POISON

REGISTRATION NUMBER: **26637**
PEST CONTROL PRODUCTS ACT
NET CONTENTS: **105 L, 200 L, 450 L, 1000L, 1050 L, Bulk**

Syngenta Canada Inc.

140 Research Lane, Research Park
Guelph, ON N1G 4Z3
Telephone: 1-877-964-3682

For use with commercial seed treaters (facilities and mobile treaters) with closed transfer systems only. No open transfer of HELIX LIQUID SEED TREATMENT. All seed treated with this product must be conspicuously coloured at the time of treatment.

2020-0150

2020-08-28

Label correction made 2022-01-11

Page 2 of 14

Label

1.0 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.

2.0 FIRST AID

IN CASE OF POISONING, IMMEDIATELY contact a physician or a poison control centre. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

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 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 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.

3.0 TOXICOLOGICAL INFORMATION

NOTE TO PHYSICIAN: There is no specific antidote for this product if ingested. If ingested, induce emesis or lavage stomach. Treat symptomatically.

4.0 PRECAUTIONS

Safety Precautions

1. KEEP OUT OF THE REACH OF CHILDREN and ANIMALS and PREVENT ACCESS BY UNAUTHORIZED PERSONNEL. For use with commercial seed treaters (facilities and mobile treaters).
2. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke during handling. At the beginning of breaks, remove protective clothing. At the end of work shifts, remove protective clothing and wash thoroughly.
3. Avoid inhalation of vapours or treated seed dust. Wash hands and face after handling and before eating, smoking, drinking or using the toilet.
4. Store the product in a well ventilated, secure area. Avoid contamination of feed and foodstuffs.
5. Clean up spilled material, equipment and work area as soon as possible after use.

6. Do not apply in a way that this product will contact workers or other persons, either directly or through drift. Only handlers (mixers, loaders and applicators) wearing personal protective equipment may be in the area during application.
7. If this pest control product is to be used on a commodity that may be exported to other countries in the world and you require information on acceptable residue levels in these countries, please contact Syngenta Canada Inc. at 1-87-SYNGENTA / 1-877-964-3682.

5.0 PERSONAL PROTECTIVE EQUIPMENT

Treat seed in a well-ventilated area. Workers involved in treating, clean-up, repair or maintenance of seed treating equipment must wear coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear. Workers involved in bagging, sewing, and stacking bags of treated seed, or when transferring seed to a storage bin must wear coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, a NIOSH/MSHA-approved dust mask, and socks and shoes. Forklift operators must wear coveralls over long-sleeved shirt, long pants, chemical-resistant gloves, and socks and shoes. For good hygiene practice, it is also recommended to wear a NIOSH/MSHA-approved dust mask during all job activities.

Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Wash splashes from skin IMMEDIATELY with plenty of water. Remove PPE immediately after handling this product. Wash the outside of gloves with soap and water before removing. As soon as possible, wash thoroughly and change into clean clothing. After spraying, wash hands and shower thoroughly with soap and water.

Heavily contaminated or drenched clothing and other absorbent materials contaminated with this product should be discarded. Do not reuse them.

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.

Wear freshly laundered clothes daily.

6.0 ENVIRONMENTAL PRECAUTIONS

Toxic to bees. Bees can be exposed to product residues in flower, leaves, pollen and/or nectar resulting from seed treatment applications. When used according to label directions minimal exposure or risk is expected. TOXIC to aquatic organisms.

Treated seed is 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 or other surfaces.

7.0 USE RESTRICTIONS

1. Treated seed must not be used for food, feed or oil processing.
2. Not for use in hopper-box, planter-box, slurry-box or other non-commercial seed treatment applications (e.g. on-farm treaters).
3. All bags containing treated seed for sale or use in Canada must be labeled or tagged as follows: **“This seed has been treated with HELIX LIQUID SEED TREATMENT which contains an insecticide (thiamethoxam) and fungicides (difenoconazole, metalaxyl-M and S-isomer, and fludioxonil). Wear long-sleeve shirt, long pants, and chemical-resistant gloves when handling treated seed. Keep out of reach of children and animals. Do not use for food, feed or oil processing. Store away from food and feed. Treated seed is TOXIC to birds. Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned-up from the soil surface.”**

8.0 STORAGE

To prevent contamination, store this product away from food or feed.

9.0 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 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 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 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.

***IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING,
CALL 1-800-327-8633 (FASTMED)***

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CAUTION



POISON

REGISTRATION NUMBER: **26637**
PEST CONTROL PRODUCTS ACT

Syngenta Crop Protection Canada Inc.

140 Research Lane, Research Park
Guelph, ON N1G 4Z3
Telephone: 1-877-964-3682

For use with commercial seed treaters (facilities and mobile treaters) with closed transfer systems only. No open transfer of HELIX LIQUID SEED TREATMENT. All seed treated with this product must be conspicuously coloured at the time of treatment.

PAMPHLET

TABLE OF CONTENTS

	<u>Section Number</u>
NOTICE TO USER	1.0
FIRST AID	2.0
TOXICOLOGICAL INFORMATION	3.0
PRECAUTIONS	4.0
PERSONAL PROTECTIVE EQUIPMENT (PPE)	5.0
ENVIRONMENTAL PRECAUTIONS	6.0
USE RESTRICTIONS	7.0
STORAGE	8.0
DISPOSAL	9.0
PRODUCT INFORMATION	10.0
Integrated Pest Management.....	10.1
DIRECTIONS FOR USE	11.0
General Information	11.1
CROP USE DIRECTIONS	12.0
Canola, Oriental Mustard (Condiment Types)	12.1
MINOR USES	13.0
Oriental Mustard (Oilseed Types)	13.1
RESISTANCE MANAGEMENT RECOMMENDATIONS.....	13.0

1.0 NOTICE TO USER

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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.

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Safety Precautions

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2. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke during handling. At the beginning of breaks, remove protective clothing. At the end of work shifts, remove protective clothing and wash thoroughly.
3. Avoid inhalation of vapours or treated seed dust. Wash hands and face after handling and before eating, smoking, drinking or using the toilet.
4. Store the product in a well ventilated, secure area. Avoid contamination of feed and foodstuffs.
5. Clean up spilled material, equipment and work area as soon as possible after use.

6. Do not apply in a way that this product will contact workers or other persons, either directly or through drift. Only handlers (mixers, loaders and applicators) wearing personal protective equipment may be in the area during application.
7. If this pest control product is to be used on a commodity that may be exported to other countries in the world and you require information on acceptable residue levels in these countries, please contact Syngenta Canada Inc. at 1-87-SYNGENTA / 1-877-964-3682.

5.0 PERSONAL PROTECTIVE EQUIPMENT

Treat seed in a well-ventilated area. Workers involved in treating, clean-up, repair or maintenance of seed treating equipment must wear coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear. Workers involved in bagging, sewing, and stacking bags of treated seed, or when transferring seed to a storage bin must wear coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, a NIOSH/MSHA-approved dust mask, and socks and shoes. Forklift operators must wear coveralls over long-sleeved shirt, long pants, chemical-resistant gloves, and socks and shoes. For good hygiene practice, it is also recommended to wear a NIOSH/MSHA-approved dust mask during all job activities.

Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Wash splashes from skin IMMEDIATELY with plenty of water. Remove PPE immediately after handling this product. Wash the outside of gloves with soap and water before removing. As soon as possible, wash thoroughly and change into clean clothing. After spraying, wash hands and shower thoroughly with soap and water.

Heavily contaminated or drenched clothing and other absorbent materials contaminated with this product should be discarded. Do not reuse them.

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.

Wear freshly laundered clothes daily.

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Toxic to bees. Bees can be exposed to product residues in flower, leaves, pollen and/or nectar resulting from seed treatment applications. When used according to label directions minimal exposure or risk is expected. TOXIC to aquatic organisms.

Treated seed is 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 or other surfaces.

7.0 USE RESTRICTIONS

1. Treated seed must not be used for food, feed or oil processing.
2. Not for use in hopper-box, planter-box, slurry-box or other non-commercial seed treatment applications (e.g. on-farm treaters).
3. All bags containing treated seed for sale or use in Canada must be labeled or tagged as follows: **“This seed has been treated with HELIX LIQUID SEED TREATMENT which contains an insecticide (thiamethoxam) and fungicides (difenoconazole, metalaxyl-M and S-isomer, and fludioxonil). Wear long-sleeve shirt, long pants, and chemical-resistant gloves when handling treated seed. Keep out of reach of children and animals. Do not use for food, feed or oil processing. Store away from food and feed. Treated seed is TOXIC to birds. Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned-up from the soil surface.”**

8.0 STORAGE

To prevent contamination, store this product away from food or feed.

9.0 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.

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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 mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

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***IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING,
CALL 1-800-327-8633 (FASTMED)***

10.0 PRODUCT INFORMATION

HELIX LIQUID SEED TREATMENT is a ready to use liquid seed treatment for canola and mustard. HELIX LIQUID SEED TREATMENT contains an insecticide (thiamethoxam) and three fungicides (difenoconazole, metalaxyl-M and S-isomer, and fludioxonil). The insecticide component of HELIX LIQUID SEED TREATMENT provides early season control of flea beetles for 14 – 21 days. The fungicide component of HELIX LIQUID SEED TREATMENT provides early season control of seed-borne blackleg (*Leptosphaeria maculans*), seed-borne *Alternaria* (*Alternaria* spp.), and the seedling disease complex (damping-off, seedling blight, seed rot and root rot) caused by *Pythium* spp., *Fusarium* spp. and *Rhizoctonia* spp.

10.1 Integrated Pest Management:

Control of Diseases and (or) Flea Beetles can be reduced significantly if:

- Canola is seeded into the same field more than once every three years.
- Seeding depths are excessive (>4 cm).
- Emerging seedlings are subjected to poor growing conditions.
- Canola is planted into fields with reduced tillage practices.

Canola fields should be monitored on a regular basis after emergence. Flea beetles often migrate from field edges inward. Field scouting will determine if a foliar insecticide application is warranted and whether it will be required over the entire field or on the headlands only.

Foliar insecticide application should be considered if:

- Flea beetle damage has reached or is approaching the economic threshold of 25% leaf area damage on the cotyledons or first true leaves.
- Canola stubble or a canola field is adjacent to emerging canola fields.
- Flea beetle populations in previous years have been observed to be high and the level of pressure sustained.

Foliar insecticide applications should be made immediately if:

- Stem feeding is observed. This may occur under cool and windy conditions.

11.0 DIRECTIONS FOR USE

11.1 General Information

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.

HELIX LIQUID SEED TREATMENT is a liquid ready to use product, which includes a pigment. No additional colorant, dyes, binders, polymers or water are required.

Apply 1.5 L/100 kg seed of HELIX LIQUID SEED TREATMENT using standard commercial seed treatment equipment which provides uniform seed coverage. Uneven or incomplete seed

coverage may not give the desired level of insect or disease control. Consult the manufacturer of the seed treating equipment for advice on the operation and calibration of the equipment. Maintain constant product agitation during the seed treatment process. Allow the seed to dry before bagging.

For additional disease control in canola, HELIX LIQUID SEED TREATMENT may be mixed with DYNASTY® 100FS Fungicide in commercial seed treatment facilities with closed transfer including closed mixing, loading, calibrating and closed treatment equipments only. Follow all appropriate directions, precautions, etc. as specified on product labels.

In some cases, tank mixing a pest control product with another pest control product or a fertilizer can result in biological effects that could include, but are not limited to: reduced pest efficacy or increased host crop injury. The user should contact Syngenta Canada Ltd at 1-87-SYNGENTA (1-877-964-3682) for information before mixing any pesticide or fertilizer that is not specifically recommended on this label.

This product contains a pigment, which will adequately colour the treated seed. However, users are responsible for ensuring that the treated seed, when dried and ready for bagging, has an unnatural colour. If the pigment contained in the formulation does not colour the seed adequately, additional colourant must be added to the mixture while treating the seed. Follow instructions on the colourant package for mixing. Regulations pertaining to colouration of treated seed enforced under the “Seed Act” must be strictly adhered to when using this product.

12.0 CROP USE DIRECTIONS

12.1 Canola, Oriental Mustard (Condiment Types)

CROPS	Canola, Oriental Mustard (Condiment types)
INSECTS CONTROLLED	Flea beetles
DISEASES CONTROLLED	Seed-borne Blackleg (<i>Leptosphaeria maculans</i>) Seed-borne <i>Alternaria</i> (<i>Alternaria</i> spp.) Seedling disease complex (damping-off, seedling blight seed rot, and root rot) <i>Pythium</i> spp. <i>Fusarium</i> spp. <i>Rhizoctonia</i> spp.
RATE (L/100 KG SEED)	1.5
NOTES	One application as a seed treatment. For control of Flea Beetles and early season seed and soil-borne diseases based on 200,000 seeds per kg (5.0 g/1000 seeds) HELIX LIQUID SEED TREATMENT delivers 2.34 g ai/kg or 11.6 µg active ingredient per seed (10 µg of thiamethoxam, 1.2 of µg difenoconazole, 0.3 of µg metalaxyl-M, 0.1 µg of fludioxonil.)

13.0 MINOR USES

The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than Syngenta Canada Inc. under the User Requested Minor Use Label Expansion program. For these uses, Syngenta Canada Inc. has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) under all environmental conditions or for all crop varieties when used in accordance with the label. The user should test the product on a small area first, under local conditions and using standard practices, to confirm the product is suitable for widespread application.

Oriental Mustard (Oilseed Types)

CROPS	Oriental Mustard (Oilseed Types)
INSECTS CONTROLLED	Flea beetles
DISEASES CONTROLLED	Seed-borne Blackleg (<i>Leptosphaeria maculans</i>) Seed-borne <i>Alternaria</i> (<i>Alternaria</i> spp.) Seedling disease complex (damping-off, seedling blight seed rot, and root rot) <i>Pythium</i> spp. <i>Fusarium</i> spp. <i>Rhizoctonia</i> spp.
RATE (L/100 KG SEED)	1.5
NOTES	One application as a seed treatment.

Note:**Seed Storage:**

Lab and field studies have shown that HELIX LIQUID SEED TREATMENT treated canola and mustard can be stored without loss in germination or insect and disease performance. However, due to seed quality and seed storage conditions beyond the control of Syngenta Canada Inc., no claims are made to guarantee the germination of carry-over seed or propagating materials for all crop seed.

Treatment of highly mechanically scarred or damaged seed, or seed known to be of low vigour and poor quality, may result in reduced germination and/or reduction of seed and seedling vigour. Treating such seed with HELIX LIQUID SEED TREATMENT should only be done for curative control of existing disease pests. Treat a small quantity of seed using equipment similar to that planned for treating the total seed lot. Conduct germination tests on a small portion of seed before committing the total seed lot to a selected seed treatment.

Seeding Equipment:

Depending on the seeding equipment used, seed treated with HELIX LIQUID SEED TREATMENT may not flow through the equipment at the same rate as untreated seed or seed treated with other canola seed treatment products. Re-calibration of seeding equipment is recommended before planting seed treated with HELIX LIQUID SEED TREATMENT.

14.0 RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, HELIX LIQUID SEED TREATMENT contains a Group 4 insecticide and Group 3, 4 and 12 fungicides. Any insect or fungal population may contain individuals naturally resistant to HELIX LIQUID SEED TREATMENT and other Group 4 insecticides or Group 3, 4 and 12 fungicides. A gradual or total loss of pest control may occur over time if these insecticides and fungicides are 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 and fungicide resistance:

Where possible, rotate the use of HELIX LIQUID SEED TREATMENT or other Group 4 insecticides and Groups 3, 4 and 12 fungicides with different groups that control the same insects or pathogens.

Insecticide and fungicide use should be based on an IPM program that includes scouting, historical information related to pesticide use and crop rotation and considers cultural, biological and other chemical control practices.

Monitor treated insect and fungal populations for resistance development.

Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pests problems in your area.

For further information and to report suspected resistance, contact Syngenta Canada Inc. at 1-877-SYNGENTA (1-877-964-3682) or at www.syngenta.ca.