

GROUP	3	4	12	FUNGICIDES
GROUP		4		INSECTICIDE

HELIX[®] LIQUID SEED TREATMENT

INSECTICIDE AND FUNGICIDES

AGRICULTURAL

HELIX LIQUID SEED TREATMENT is a liquid seed treatment for use on canola and mustard for the 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.

GUARANTEE:

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

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

CAUTION



POISON

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

NET CONTENTS: **105 L, 200 L, 450 L, 1000L, 1050 L, Bulk**

Syngenta Crop Protection Canada Inc.
140 Research Lane, Research Park
Guelph, ON
N1G 4Z3

For use in commercial seed treatment facilities 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.

NOTICE TO USER

This control product is to be used only in accordance with the directions on this label. It is an offence under the PEST CONTROL PRODUCTS ACT to use a control product under unsafe conditions.

NOTICE TO BUYER

Seller's guarantee shall be limited to the terms set out on the label and, subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.

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: Flush eyes with copious amounts of clean water for 15 minutes, holding eye lids apart in order to rinse the entire surface of the eye and lids. Do not apply any medicating agents except on the advice of a physician. Obtain medical attention or contact a poison control centre if irritation occurs.

If ingested: If victim is fully conscious, give a large quantity of water to drink and induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or poison control centre **IMMEDIATELY**.

If inhaled: Remove victim from contaminated area to fresh air. Apply artificial respiration if necessary.

If on skin: Remove contaminated clothing and thoroughly wash the affected parts of the body with soap and water, including hair and under fingernails. Do not apply any medicating agents except on the advice of a physician.

TOXICOLOGICAL INFORMATION

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

PRECAUTIONS

Safety Precautions:

1. KEEP OUT OF THE REACH OF CHILDREN, UNAUTHORIZED PERSONNEL and DOMESTIC ANIMALS. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke during handling. At end of work shift or breaks, remove protective clothing and wash thoroughly.

2. Avoid inhalation of vapours or treated seed dust. Wash hands and face after handling and before eating, smoking, drinking or using the toilet.
3. Store the product in a well ventilated, secure area. Avoid contamination of feed and foodstuffs.
4. Clean up spilled material, equipment and work area as soon as possible after use.
5. Treat seed in a well-ventilated area. Workers involved in treating, clean-up, or maintenance of seed treatment equipment must wear chemical-resistant coveralls over long sleeve shirt and long pants, chemical-resistant gloves, head gear, and respiratory protection (i.e., half-mask respirator with suitable dust filter or fresh air hood). Baggers, sewers and stackers must wear coveralls over long sleeve shirt and long pants, chemical-resistant gloves, head gear and respiratory protection (i.e., single use dust mask, quarter- or half-mask respirator, fresh air hood). Forklift operators must wear coveralls over long sleeve shirt and long pants and gloves.

Environmental Precautions:

1. Do not apply directly to water, or to areas where surface water is present.
2. Do not contaminate food, feed, domestic or irrigation water supplies, lakes, streams and ponds.
3. In cleaning of equipment or disposing of wastes, do not contaminate water used for human or animal consumption or by wildlife and aquatic life or for irrigation purposes.
4. If treated seed is spilled outdoors, promptly clean up.

NOTE: In case of accident, take the product label or a copy of the MSDS to the emergency facility or physician.

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 the insecticide (thiamethoxam) and the fungicides (difenoconazole, metalaxyl-M and fludioxonil). Wear long-sleeve shirt, long pants, and chemical-resistant gloves when handling treated seed. Do not use for food, feed or oil processing. Store away from food and feed."**

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 U.S., contact 1-866-375-4648 or www.cropro.org.

DECONTAMINATION AND 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.

CONTAINER DISPOSAL:**For Refillable 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 Non Returnable 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 future 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)**

GENERAL 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 fludioxonil). The insecticide component of HELIX LIQUID SEED TREATMENT provides 14 – 21 day control of flea beetles. The fungicide component of HELIX LIQUID SEED TREATMENT provides 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.

DIRECTIONS FOR USE

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.

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.

Crops	Insect Controlled	Diseases Controlled	Rate (L / 100 kg seed)
Canola Mustard	Flea beetles	Seed-borne Blackleg (<i>Leptosphaeria maculans</i>) Seed-borne <i>Alternaria</i> (<i>Alternaria</i> spp.) Seedling disease complex (<i>damping-off</i> , <i>seedling blight</i> <i>seed rot</i> , and <i>root rot</i>) <i>Pythium</i> spp. <i>Fusarium</i> spp. <i>Rhizoctonia</i> spp.	1.5

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 Crop Protection 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.

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 Crop Protection Canada Inc. at 1-87S-YNGENTA (1-877-964-3682) or at www.syngenta.ca.

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