

GROUP	3	4	12	FUNGICIDES
GROUP		4		INSECTICIDE

HELIX[®] Colourless Seed Treatment

INSECTICIDE AND FUNGICIDES

SUSPENSION

AGRICULTURAL

HELIX Colourless 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 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 UNAUTHORIZED PERSONNEL**

CAUTION



POISON

REGISTRATION NUMBER: **27312**
PEST CONTROL PRODUCTS ACT
NET CONTENTS: **105 L to 1050 L**

Syngenta Canada, Inc.

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

For use in commercial seed treatment facilities with closed transfer systems only. No open transfer of HELIX Colourless Seed Treatment. All seed treated with this product must be conspicuously coloured at the time of treatment.

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. A blue colourant must be added when this product is applied to oilseed.

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.

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.

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, spray mist 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. 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.

6. 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.

Environmental Hazards

1. Toxic to bees. Bees can be exposed to product residues in flower, leaves, pollen and/or nectar resulting from seed treatment applications.
2. Treated seed is TOXIC to birds and small wild mammals.
3. Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned-up from the soil or other surfaces.

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 Colourless Seed Treatment which contains the insecticide (thiamethoxam) and the fungicides (difenoconazole, metalaxyl-M and s-isomer and fludioxonil). Wear long-sleeved 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 the U.S., visit CropLife Canada's website at www.croplife.ca.

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:

For disposal, this empty 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 purpose.

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)***

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GROUP		4		INSECTICIDE

HELIX® Colourless Seed Treatment

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2. Avoid inhalation of vapours, spray mist 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.
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5. 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.

6. 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.

Environmental Hazards

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

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 Colourless Seed Treatment which contains the insecticide (thiamethoxam) and the fungicides (difenoconazole, metalaxyl-M and s-isomer and fludioxonil). Wear long-sleeved 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.”**

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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 Colourless Seed Treatment is a ready to use liquid seed treatment for canola and mustard. HELIX Colourless Seed Treatment contains an insecticide (thiamethoxam) and three fungicides (difenoconazole, metalaxyl-M and fludioxonil). The insecticide component of HELIX Colourless Seed Treatment provides 14 – 21 day control of flea beetles. The fungicide component of HELIX Colourless 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

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.

Apply 1.5 L/100 kg seed of HELIX Colourless 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 Colourless 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.

This product does not contain a colourant. A suitable colourant must be added to the slurry prior to application to the seed (baby blue for rapeseed/canola, oilseed mustard). Follow instructions on the colorant package for mixing. Regulations pertaining to colouration of treated seed enforced under the “Seed Act” must be strictly adhered to when using this product. Users are responsible for ensuring that the treated seed, when dried and ready for bagging, has an unnatural colour.

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 (damping-off, seedling blight, seed rot, and root rot) <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 Colourless Seed Treatment treated canola and mustard seed 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 material 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 Colourless 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 Colourless 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 Colourless Seed Treatment.

Resistance Management Recommendations

For resistance management, HELIX Colourless 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 Colourless 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 Colourless 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.

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