This label has been updated according to the re-evaluation decision of Difenoconazole RVD2022-05. While users are encouraged to follow this updated label immediately, the previously approved label is valid until 21/04/2024 in accordance with the phase out period set out in the re-evaluation/special review decision of Difenoconazole RVD2022-05. This previously approved label will be provided upon request by emailing hc.pmra.info-arla.sc@canada.ca. In your email please include the product name and Registration number of the label you are requesting.

GROUP	3	4	7	12	FUNGICIDES
GROUP			4		INSECTICIDE

# HELIX<sup>®</sup> VIBRANCE<sup>®</sup>

# INSECTICIDE AND FUNGICIDE SEED TREATMENT

#### SUSPENSION

#### **COMMERCIAL - AGRICULTURAL**

A liquid seed treatment to control diseases and insect pests in labeled crops.

# **ACTIVE INGREDIENTS:**

Thiamethoxam	
Difenoconazole	16 g/L
Metalaxyl-M and S-isomer	
Sedaxane	3.4 g/L
Fludioxonil	

Contains 1,2-benzisothiazolin-3-one at 0.048% and 2-bromo-2-nitropropane-1,3-diol at 0.030% OR 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0006% and 2-methyl-4-isothiazolin-3-one at 0.00019% and 2-bromo-2-nitropropane-1,3-diol at 0.030% as preservatives.

# READ THE LABEL AND BROCHURE BEFORE USING

CAUTION



POISON

#### KEEP OUT OF THE REACH OF CHILDREN AND ANIMALS AND PREVENT ACCESS BY UNAUTHORIZED PERSONNEL

REGISTRATION NUMBER: **31454** PEST CONTROL PRODUCTS ACT NET CONTENTS: **1 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 and mobile treaters) with closed transfer systems including closed mixing, loading, calibrating, and closed treatment equipment only. No open transfer of HELIX<sup>®</sup> VIBRANCE<sup>®</sup> is permitted. All seed treated with this product must be conspicuously coloured at the time of treatment.

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 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 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.

# 3.0 TOXICOLOGICAL INFORMATION

There is no specific antidote for this product if ingested. Treat symptomatically.

# 4.0 **PRECAUTIONS**

#### Safety Precautions

- 1. KEEP OUT OF THE REACH OF CHILDREN and DOMESTIC 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. Harmful if swallowed. 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. Do not graze or feed livestock on treated areas.
- 6. Do not plant any crop other than those on the HELIX VIBRANCE or VIBRANCE 500FS Seed Treatment label within 60 days to fields in which seed treated with HELIX VIBRANCE

were planted.

- 7. Clean up spilled material, equipment and work area as soon as possible after use.
- 8. Apply only in a way that this product will not contact workers or other persons, either directly or through drift. Only workers (mixers, loaders and applicators) wearing personal protective equipment may be in the area when seed is being treated or bagged.
- Use closed transfer for commercial seed treatment (facilities and mobile treaters). Closed transfer includes closed mixing, loading, calibrating and closed treatment equipment. No open transfer is permitted.
- 10. For all activities when treating, handling treated seed, cleaning or contacting contaminated equipment during commercial treatment, wear coveralls over a long-sleeved shirt, long pants, shoes plus socks, and chemical-resistant gloves.
- 11. 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 clean-up of seed-treating equipment must wear chemical-resistant coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear. Workers involved in treating seeds or 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-approved N95 filtering facepiece respirator (dust mask) that is properly fit tested 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-approved N95 filtering facepiece respirator (dust mask) that is properly fit tested 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

1. Do not apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, ditches and wetlands), estuaries or marine habitats.

- 2. Do not contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.
- 3. TOXIC to aquatic organisms.
- 4. Toxic to bees. Bees can be exposed to product residues in flowers, leaves, pollen and/or nectar resulting from seed treatment applications. When used according to label directions minimal exposure or risk is expected.
- 5. 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 the insecticide, thiamethoxam and fungicides, difenoconazole, metalaxyl-M and S-isomer, fludioxonil and sedaxane. Wear coveralls over a long-sleeved shirt, long pants, socks, shoes, and chemical-resistant gloves when handling treated seeds, planting, and during maintenance, clean-up, and repair. In addition, wear a properly fit-tested NIOSH-approved N95 filtering facepiece respirator (dust mask) when handling treated seeds (includes loading and unloading). Use only closed-cab planting equipment. Gloves and a dust mask do not need to be worn when inside the closed cab. Keep treated seeds 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 Returnable Containers

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

#### 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.

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

HELIX<sup>®</sup> and VIBRANCE<sup>®</sup> are trademarks of a Syngenta Group Company.

GROUP	3	4	7	12	FUNGICIDES
GROUP		4			INSECTICIDE

# HELIX<sup>®</sup> VIBRANCE<sup>®</sup>

#### INSECTICIDE AND FUNGICIDE SEED TREATMENT

#### SUSPENSION

#### **COMMERCIAL - AGRICULTURAL**

A liquid seed treatment to control diseases and insect pests in labeled crops.

# **ACTIVE INGREDIENTS:**

Thiamethoxam	269 g/L
Difenoconazole	16 g/L
MetalaxyI-M and S-isomer	5 g/L
Sedaxane	3.4 g/L
Fludioxonil	1.7 g/L

Contains 1,2-benzisothiazolin-3-one at 0.048% and 2-bromo-2-nitropropane-1,3-diol at 0.030% OR 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0006% and 2-methyl-4-isothiazolin-3-one at 0.00019% and 2-bromo-2-nitropropane-1,3-diol at 0.030% as preservatives.

#### READ THE LABEL AND BROCHURE BEFORE USING

CAUTION



POISON

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REGISTRATION NUMBER: **31454** PEST CONTROL PRODUCTS ACT

#### Syngenta Canada Inc.

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

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Pamphlet

# TABLE OF CONTENTS

	Section Number
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	
STORAGE	8.0
DISPOSAL	
PRODUCT INFORMATION Integrated Pest Management for Canola	
DIRECTIONS FOR USE General Information	
CROP USE DIRECTIONS Canola, Rapeseed, Mustard Seed (Condiment and Oilseed) Tank Mixes	
RESISTANCE MANAGEMENT RECOMMENDATIONS	13.0

#### 1.0 NOTICE TO USER

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- 3. Harmful if swallowed. 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.
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Treat seed in a well-ventilated area. Workers involved in clean-up of seed-treating equipment must wear chemical-resistant coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear. Workers involved in treating seeds or 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-approved N95 filtering facepiece respirator (dust mask) that is properly fit tested 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-approved N95 filtering facepiece respirator (dust mask) that is properly fit tested during all job activities.

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

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Wear freshly laundered clothes daily.

#### 6.0 ENVIRONMENTAL PRECAUTIONS

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# 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 the insecticide, thiamethoxam and fungicides, difenoconazole, metalaxyl-M and S-isomer, fludioxonil and sedaxane. Wear coveralls over a long-sleeved shirt, long pants, socks, shoes, and chemical-resistant gloves when handling treated seeds, planting, and during maintenance, clean-up, and repair. In addition, wear a properly fit-tested NIOSH-approved N95 filtering facepiece respirator (dust mask) when handling treated seeds (includes loading and unloading). Use only closed-cab planting equipment. Gloves and a dust mask do not need to be worn when inside the closed cab. Keep treated seeds 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 Returnable Containers

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

# 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)

# **10.0 PRODUCT INFORMATION**

HELIX VIBRANCE contains an insecticide, thiamethoxam, and four fungicides, difenoconazole, metalaxyI-M and S-isomer, fludioxonil and sedaxane. This product controls a broad spectrum of seed and soil-borne diseases as well as early-season control of flea beetles.

# 10.1 Integrated Pest Management for Canola

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 VIBRANCE is a premix formulation that includes a pigment. To optimize seed coverage, water, additional colourant and polymers can be added to facilitate application.

Apply 1.5 L/100 kg seed of HELIX VIBRANCE using standard commercial seed treatment equipment that 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.

Ideal storage temperature is above freezing and below 30 °C. Repeated freeze-thawing of HELIX VIBRANCE will not affect the physical integrity of the product. If the product should freeze, bring the product back to room temperature and ensure the contents are mixed well prior to application.

This product contains a pigment that 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, Rapeseed, Mustard Seed (Condiment and Oliseed)		
CROPS	Canola	
	Rapeseed	
	Mustard Seed (condiment and oilseed)	
INSECTS CONTROLLED	Flea beetles, Leafhoppers	
DISEASES	Seed-borne Blackleg (Leptosphaeria maculans)	
CONTROLLED	Seed-borne Alternaria (Alternaria spp.)	
	Seedling disease complex (damping-off, seedling blight seed rot, and root rot)	
	caused by Pythium spp., Fusarium spp. and Rhizoctonia spp.	
RATE	1.5 L product/100 kg seed	
NOTES	One application as a seed treatment.	
	Do not make any subsequent application of a Group 4 Insecticide (i.e., in-furrow or foliar application) following treatment with HELIX VIBRANCE.	
	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 VIBRANCE delivers 4.39 g ai/kg or 21.8 $\mu$ g active ingredient per seed (20 $\mu$ g of thiamethoxam, 1.2 of $\mu$ g difenoconazole, 0.3 $\mu$ g of metalaxyl-M, 0.1 $\mu$ g of fludioxonil, 0.2 $\mu$ g of sedaxane.)	

# 12.1 Canola, Rapeseed, Mustard Seed (Condiment and Oilseed)

#### Note: Seed Storage

Lab and field studies have shown that HELIX VIBRANCE treated canola and mustard can be safely

stored for 18 months 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 VIBRANCE 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 VIBRANCE 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 VIBRANCE.

# 12.2 Tank Mixes

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 Syngenta Canada Inc. at 1-87-SYNGENTA/1-877-964-3682 for information before applying any tank mix that is not specifically recommended on this label.

Syngenta Canada Inc. has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) of all potential tank mixes under all environmental conditions or for all crop varieties. Tank mixes that are not specifically listed on this label should be tested on a small area first, under local conditions and using standard practices, to confirm the tank mix is suitable for widespread application.

To determine the physical compatibility of this product with other products, use a jar test.

Always read and follow label directions including WALES mixing order.

# 13.0 RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, HELIX VIBRANCE contains a Group 4 insecticide and Groups 3, 4, 7 and 12 fungicides. Any insect or fungal population may contain individuals naturally resistant to HELIX VIBRANCE and other Group 4 insecticides or Groups 3, 4, 7 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 VIBRANCE or other Group 4 insecticides and Groups 3, 4, 7 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 1-87-SYNGENTA (1-877-964-3682) or at <u>www.syngenta.ca</u>.

HELIX<sup>®</sup> and VIBRANCE<sup>®</sup> are trademarks of a Syngenta Group Company.