Helix® Vibrance®

Insecticide with Fungicides
A seed treatment product for control of certain insects and diseases of canola.
For use in commercial seed treatment facilities with closed transfer systems only.

Active Ingredients:
- Thiamethoxam\(^1\)........................................... 20.7%
- Difenconazole\(^2\)......................................... 1.25%
- Mefenoxam\(^3\)............................................ 0.40%
- Fludioxonil\(^4\)............................................. 0.13%
- Sefixane\(^5\)................................................... 0.26%

Other Ingredients: 77.26%
Total: 100.00%

\(^1\)CAS No. 153719-23-4
\(^2\)CAS No. 119446-68-3
\(^3\)CAS Nos. 77620-17-0 and 69516-34-3
\(^4\)CAS No. 131341-86-1
\(^5\)CAS No. 874967-67-6

Helix® Vibrance® contains the following amounts of active ingredient per gallon: 2.25 lb thiamethoxam; 0.14 lb difenconazole; 0.04 lb mefenoxam; 0.01 lb fludioxonil; 0.03 lb sefixane.

KEEP OUT OF REACH OF CHILDREN.

CAUTION
See additional precautionary statements and directions for use in booklet.
EPA Reg. No. 100-1528  EPA Est. 100-NE-001
SCP 1528A-L1 0614
4040944

30 Gallons
Net Contents
FIRST AID

| If swallowed | - Call a poison control center 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 the poison control center or doctor. 
|              | - Do not give anything by mouth to an unconscious person. |

HOT LINE NUMBER
For 24-Hour Medical Emergency Assistance (Human or Animal)  
Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident),  
Call  
1-800-888-8372

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION
Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Personal Protective Equipment
Workers involved in treating, cleanup, or maintenance of seed treatment equipment must wear:
- Coveralls worn over long-sleeved shirt and long pants
- Socks and shoes
- Chemical-resistant gloves made of any waterproof material (e.g., polyvinyl chloride [PVC], nitrile rubber or butyl rubber, barrier laminate, neoprene rubber, natural rubber, polyethylene, or Viton®)

Baggers, sewers, and stackers must wear:
- Coveralls worn over long-sleeved shirt and long pants
- Socks and shoes
- Chemical-resistant gloves made of any waterproof material (e.g., polyvinyl chloride [PVC], nitrile rubber or butyl rubber, barrier laminate, neoprene rubber, natural rubber, polyethylene, or Viton®)

continued...
PRECAUTIONARY STATEMENTS (continued)

Forklift operators
• Coveralls worn over long-sleeved shirt and long pants.
• Socks and shoes

Follow manufacturer’s instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should:
• Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
• Remove clothing/PPE immediately if pesticides get inside. Then wash thoroughly and put on clean clothing.
• Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

This pesticide is toxic to wildlife, freshwater and estuarine/marine fish and highly toxic to aquatic invertebrates. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Exposed treated seed may be hazardous to wildlife. Do not contaminate water when disposing of equipment wash water or rinsate.

Pollinator Precautions:
Thiamethoxam is highly toxic to bees, and effects are possible as a result of exposure to translocated residues in blooming crops.
If treated seed is spilled outdoors or in areas accessible to birds, promptly clean up or bury to prevent ingestion.

Ground Water Advisory
Thiamethoxam has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into the ground water if used in areas where soils are permeable, particularly where the water table is shallow.
Mefenoxam is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.
CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.
DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Not for use on agricultural establishments in hopper-box, planter-box, slurry-box, or other seed-treatment applications at or immediately before planting.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR INSECT AND/OR DISEASE CONTROL, AND/OR ILLEGAL RESIDUES.

Treatment of highly mechanically scarred or damaged seed, or seed known to be of low vigor and poor quality, except for the purpose of curative control of existing disease pests, may result in reduced germination and/or reduction of seed and seedling vigor. 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. Due to seed quality and seed storage conditions beyond the control of Syngenta, no claims are made to guarantee the germination of carry-over seed or propagating material for all crop seed.

PRODUCT INFORMATION

Helix Vibrance is a seed treatment product that contains both insecticide and fungicide components with activity against certain early season insects, and seed-borne and damping-off diseases of canola. Thiamethoxam, the insecticide component, provides activity against aphids, flea beetles, seedcorn maggot, white grubs, and wireworms. The remaining components are fungicides with activity against diseases caused by Alternaria species, Pythium species, Fusarium species, Rhizoctonia species, and seed-borne blackleg (Leptosphaeria maculans).
MIXING PROCEDURES

Important: Always re-circulate Helix Vibrance thoroughly before using.

Apply utilizing standard slurry 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 application equipment you plan to use for suitability for this application and for instructions on operation and calibration of the equipment. Allow seed to dry before bagging.

Helix Vibrance contains an EPA approved dyekolorant that imparts an unnatural color to the seed as required by the Federal Seed Act.

Helix Vibrance has a density of approximately 10.85 pounds per gallon.

SEED BAG LABEL REQUIREMENTS

The Federal Seed Act requires that bags containing treated seeds shall be labeled with the following statements:

- This seed has been treated with thiamethoxam insecticide and fludioxonil, difenoconazole, mfenoxam, and sedaxane fungicide.
- Do not use for feed, food, or oil purposes.
- User is responsible for ensuring that the seed bag meets all requirements under the Federal Seed Act.

In addition, the U.S. Environmental Protection Agency requires the following statements on bags containing seeds treated with Helix Vibrance:

- Ground Water Advisory:
  Thiamethoxam has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into the ground water if used in areas where soils are permeable, particularly where the water table is shallow.
  Mfenoxam is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.
• Pollinator Precautions:
  Thiamethoxam is highly toxic to bees, and effects are possible as a result of exposure to translocated residues in blooming crops.
• Excess treated seed may be used for ethanol production only if (1) by-products are not used for livestock feed and (2) no measurable residues of pesticide remain in the ethanol by-products that are used in agronomic practice.
• Do not allow children, pets, or livestock to have access to treated seed.
• Store away from feeds and foodstuffs.
• Wear long-sleeved shirt, long pants and chemical resistant gloves when handling treated seed.
• Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading.
• Treated seed must be planted into the soil at a depth greater than 1 1/2 inch.
• Dispose of all excess treated seed. Leftover treated seed may be double-sown around the headland or buried away from water sources in accordance with local requirements.
• Do not contaminate water bodies when disposing of planting equipment wash waters.
• Dispose of seed packaging in accordance with local requirements.
• For seed treated with Helix Vibrance, do not graze or feed livestock on treated areas for 45 days after planting.
• In the event of a crop failure or harvest of a crop grown from Helix Vibrance treated seed, the field may be replanted immediately to canola, soybean, barley, oat, rye, triticale and wheat, sweet corn, and chickpea.
• Alfalfa, Brassica (cole) leafy vegetables, buckwheat, corn, pearl millet, proso millet, popcorn, rice (dry-seeded), sorghum, teosinte, wild rice, cotton, cucurbit vegetables, dry bulb onions, fruiting vegetables, leafy vegetables, legume vegetables, mint (peppermint and spearmint), oil seed crops (black mustard seed, borage seed, crambe seed, field mustard seed, flax seed, Indian mustard seed, Indian rapeseed seed, peanuts, rapeseed seed, and safflower seed), root vegetables, strawberry, sunflowers, tobacco, and tuberous and corn vegetables may be planted 30 days from the date the Helix Vibrance treated seed was planted.
• For any other crop, the minimum plant back interval is 120 days from the date the Helix Vibrance treated seed was planted. A cover crop other than the crops listed above that is planted for erosion control or soil improvement may be planted sooner than the 120 day interval; however, the crop may not be grazed or harvested for food or feed.
• Do not use at a rate that will result in more than 0.05 lb thiamethoxam per acre (22.7 grams a.i/A) per year as a seed treatment application.
• This seed has been treated with 0.01 mg ai thiamethoxam per seed.
• Do not make any soil or foliar applications containing thiamethoxam to crops grown from seed treated with Helix Vibrance.

CROP USE PRECAUTIONS

Resistance Management
Helix Vibrance contains sedaxane, a Group 7 fungicide, thiamethoxam, a Group 4A insecticide; mefenoxam, a Group 4 fungicide, fludioxonil, a Group 12 fungicide and difenoconazole, a Group 3 fungicide.

Some disease organisms and insect pests are known to develop resistance to products after repeated use. Because resistance development cannot be predicted, the use of this product should conform to sound resistance management strategies established for the crop and use area. Syngenta encourages responsible product stewardship to ensure effective long-term control of the insects on this label.

Mefenoxam, difenoconazole, sedaxane and fludioxonil have specific modes of action and could be subject to development of insensitive strains of fungi. Development of insensitivity cannot be predicted. Therefore, Syngenta cannot assume liability for crop damage resulting from insensitive strains of fungi. Consult with your State Agricultural Experiment Station or Extension Service Specialist for guidance and ways to control any possible mefenoxam insensitive strains of fungi which may occur.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area.

Helix Vibrance contains a Group 4A insecticide (thiamethoxam, belonging to the neonicotinoid class of chemistry). Insect biotypes with acquired or inherent resistance to Group 4A insecticides may eventually dominate the insect population if Group 4A insecticides are used repeatedly as the predominant method of control for targeted species. This may result in partial or total loss of control of those species by thiamethoxam or other Group 4A insecticides.
In order to maintain susceptibility to this class of chemistry:

- Avoid using Group 4A insecticides exclusively for season long control of insect species with more than one generation per crop season.
- For insect species with successive or overlapping generations, apply [brand name] or other Group 4A insecticides using a “treatment window” approach. A treatment window is a period of time as defined by the stage of crop development and/or the biology of the pests of concern. Within the treatment window, depending on the length of residual activity, there may either be single or consecutive applications (seed treatment, soil, foliar, unless otherwise stated in the Directions for Use) of the Group 4A insecticides. When using Helix Vibrance seed treatment in the first treatment window rotate to effective products with a different mode of action in the subsequent treatment window before making additional applications of Group 4A insecticides.
- A treatment window rotation, along with other IPM practices for the crop and use area, is considered an effective strategy for preventing or delaying a pest’s ability to develop resistance to this class of chemistry.
- If resistance is suspected, do not apply Helix Vibrance or any other Group 4A insecticides.

Other Insect Resistance Management (IRM) practices include:

- Incorporating IPM techniques into your insect control program.
- Monitoring treated insect populations for loss of field efficacy.
- Using tank-mixtures or premixes with insecticides from a different target site of action group as long as the involved products are all registered for the same crop outlet and effective rates are applied.

For additional information on Insect Resistance Management:

- Contact your local extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management recommendations.
- Visit the Insecticide Resistance Action Committee (IRAC) on the web at: http://www.irac-online.org/.

Consult your local pest control advisor or extension office for additional methods for preventing resistance development. Syngenta encourages responsible product stewardship to ensure effective long term control of the fungal and insect pests on this label.
CROP USE DIRECTIONS

Canola
To provide early season protection against aphids, flea beetles, seedcorn maggvet, white grubs, wireworms, seed-borne blackleg (Leptosphaeria maculans), seed-borne Alternaria, and the seedling disease complex (damping-off, seedling blight, seed rot, and root rot) caused by Pythium species, Fusarium species, and Rhizoctonia species, apply Helix Vibrance at 23 fluid ounces of product per 100 pounds of seed.

STORAGE AND DISPOSAL
Do not contaminate water, food or feed by storage and disposal.

Pesticide Storage
Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to the label.

Pesticide Disposal
Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Handling [less than 5 gallons]
Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

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STORAGE AND DISPOSAL (continued)

Container Handling [greater than 5 gallons]

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¾ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinseate into application equipment or a mix tank or store rinseate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Container Handling [greater than 5 gallons]

Refillable container. Refill this container with pesticide only. Do not use this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinseate into application equipment or rinseate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.
Insecticide with Fungicides

A seed treatment product for control of certain insects and diseases of canola. For use in commercial seed treatment facilities with closed transfer systems only.

Active Ingredients:
- Thiamethoxam: 20.7%
- Thiamethoxam: 1.25%
- Metanofuran: 0.85%
- Fluadoxin: 0.13%
- Seedaxone: 0.14%
- Other Ingredients: 14.64%

Total: 27.26%

Keep out of reach of children.

CAUTION
See additional precautionary statements and directions for use in booklet.

EPA Reg. No. 100-1528
EPA Est. No. NE-001

Product ID: 56187

30 gallons
Net Contents

Storage and Disposal

Do not contaminate water, food or feed by storage and disposal.

Pesticide Storage

Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill, on flesh or food surfaces, wash and rinse in chemical waste storage area until proper disposal can be made if product cannot be used according to label.

Pesticide Disposal

Pesticides are toxic, leach into ground water, and are regulated by the Federal Water Pollution Control Act. Do not dispose of pesticides other than in accordance with label instructions, contact your State Environmental Control Agency, or the Environmental Protection Agency. Refer to the Environmental Protection Agency’s Water Quality Management Manual for guidance.

Groundwater Advisory

Pesticides can enter ground water if care is not taken to prevent their entry. Do not store the product in a drain or near a storm drain. Use a storm water collection system to prevent storm water runoff from entering storm drains.

Conditions of Sale and Limitation of Warranty and Liability

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using the product. If the terms are not acceptable, return the product at once unopened, and the purchaser will be refunded.

The information in this product is intended for use as a guide only. Syngenta does not assume any responsibility for any other factors which may enter into the use of this product. These factors include but are not limited to the following:
- The condition of the soil
- The condition of the plant
- The condition of the area
- The condition of the weather
- The condition of the equipment
- The condition of the operator

Syngenta warrants that the pest control obtained from the chemical on the label is in and reasonably meets the purpose stated in the Directions for Use, subject to the following conditions:
- The pest control is obtained in accordance with the recommendations for use on the label.
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- The condition of the operator