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# Vortex FL

## Seed Treatment Fungicide

GROUP	3	FUNGICIDE
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Vortex FL Seed Treatment Fungicide provides protection from seed, seedling and soil-borne diseases caused by *Aspergillus* spp., *Cladosporium* spp., *Fusarium* spp., *Penicillium* spp., *Rhizoctonia solani*, and *Rhizopus* spp. on field corn, sweet corn and popcorn. All seed treated with this product must be conspicuously coloured at the time of treatment. Vortex FL Seed Treatment Fungicide is ONLY for use by commercial seed treatment applicators using closed mixing/loading equipment.

SUSPENSION

AGRICULTURAL

GUARANTEE: ipconazole ..... 450 g/L

REGISTRATION NO. 29174 PEST CONTROL PRODUCTS ACT

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

PROTECT FROM FREEZING

NET CONTENTS: 0.473L - bulk

Bayer CropScience Inc.  
Suite 200, 160 Quarry Park Blvd. S.E.  
Calgary, AB T2C 3G3

For product information, call: 1-888-283-6847

In case of spills, poisoning, fire or other emergencies, call: 1-800-334-7577 (24 hours a day)

#### PRECAUTIONS:

- KEEP OUT OF REACH OF CHILDREN.
- When handling Vortex FL Seed Treatment Fungicide, contaminated equipment or seed treated with Vortex FL Seed Treatment Fungicide, wear long pants, a long-sleeved shirt and chemical resistant gloves. In addition, wear a suitable dust mask when bagging or sewing bags of treated seed or when transferring seed to a storage bin.
- Use good personal hygiene, washing hands and exposed skin with warm water and soap before eating, drinking, or smoking. No food, drink or tobacco should be allowed in areas of chemical storage or use.
- 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 the acceptable residue levels in the U.S., visit CropLife Canada's website at [www.croplife.ca](http://www.croplife.ca).

#### FIRST AID:

**In case of poisoning,** IMMEDIATELY call a physician or poison control centre. Take the 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/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 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 inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control centre or doctor for further treatment advice.

#### TOXICOLOGICAL INFORMATION:

There is no specific antidote if this product is ingested. Treat symptomatically. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia.

#### ENVIRONMENTAL HAZARDS:

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 surface.

#### STORAGE:

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

## DISPOSAL:

### FOR NON-RETURNABLE CONTAINERS:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the mixture in the tank.
2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. 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 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 spray mixture in the tank.
2. Make the empty container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

### FOR RETURNABLE 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 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 use this container for any other purpose.

**TRIPLE RINSE INSTRUCTIONS (FOR RECYCLABLE AND DISPOSABLE CONTAINERS ONLY):** This container should be triple-rinsed prior to its disposal. The rinsate can be added to the seed treatment. Follow these steps for rinsing of containers:

1. Transfer Vortex FL Seed Treatment Fungicide from the container to the seed treating equipment applicator tank.
2. Add 1/3 of the rinse water to the container and agitate the contents.
3. Transfer the rinsate to the applicator tank.
4. Rinse as above 2 more times.
5. Thoroughly mix the Vortex FL Seed Treatment Fungicide and rinse water in the applicator tank prior to use.

**CAUTION:** Be sure to adjust the undiluted application rate by the same volume of water added to compensate for the dilution of the product caused by the addition of rinsate.

**DISPOSAL OF UNUSED, UNWANTED PRODUCT:**

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.

**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.



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## GENERAL INFORMATION

### Section 1: The Product

Vortex FL Seed Treatment Fungicide is a seed treatment containing the systemic, broad-spectrum fungicide ipconazole. Vortex FL Seed Treatment Fungicide provides protection from seed, seedling and soil-borne diseases caused by *Aspergillus* spp., *Cladosporium* spp., *Fusarium* spp., *Penicillium* spp., *Rhizoctonia solani*, and *Rhizopus* spp. on field corn, sweet corn and popcorn.

## SAFETY AND HANDLING

### Section 2: Precautions, Protective Clothing and Equipment

#### PRECAUTIONS:

- KEEP OUT OF REACH OF CHILDREN.
- When handling Vortex FL Seed Treatment Fungicide, contaminated equipment or seed treated with Vortex FL Seed Treatment Fungicide, wear long pants, a long-sleeved shirt and chemical resistant gloves. In addition, wear a suitable dust mask when bagging or sewing bags of treated seed or when transferring seed to a storage bin.
- Use good personal hygiene, washing hands and exposed skin with warm water and soap before eating, drinking, or smoking. No food, drink or tobacco should be allowed in areas of chemical storage or use.
- 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 the acceptable residue levels in the U.S., visit CropLife Canada's website at [www.croplife.ca](http://www.croplife.ca).

### Section 3: First Aid and Toxicological Information

#### FIRST AID:

**In case of poisoning**, IMMEDIATELY call a physician or poison control centre. Take the 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.

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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 mouth-to-mouth if possible. Call a poison control centre or doctor for further treatment advice.

#### TOXICOLOGICAL INFORMATION:

There is no specific antidote if this product is ingested. Treat symptomatically. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia.

### Section 4: Environmental Precautions and Information

#### ENVIRONMENTAL HAZARDS:

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 surface.

### Section 5: Storage

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

### Section 6: Disposal

#### FOR NON-RETURNABLE CONTAINERS:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the mixture in the tank.
2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
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**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 use this container for any other purpose.

**TRIPLE RINSE INSTRUCTIONS (FOR RECYCLABLE AND DISPOSABLE CONTAINERS ONLY):** This container should be triple-rinsed prior to its disposal. The rinsate can be added to the seed treatment. Follow these steps for rinsing of containers:

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4. Rinse as above 2 more times.
5. Thoroughly mix the Vortex FL Seed Treatment Fungicide and rinse water in the applicator tank prior to use.

**CAUTION:** Be sure to adjust the undiluted application rate by the same volume of water added to compensate for the dilution of the product caused by the addition of rinsate.

**DISPOSAL OF UNUSED, UNWANTED PRODUCT:**

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.

<b>Section 7: Notices</b>
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**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.

**DIRECTIONS FOR USE**

**DO NOT** contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

DO NOT apply by air.

**Section 8: Pests Controlled**

Vortex FL Seed Treatment Fungicide is a seed treatment containing the fungicide ipconazole. Vortex FL Seed Treatment Fungicide provides protection from seed, seedling and soil-borne diseases caused by *Aspergillus* spp., *Cladosporium* spp., *Fusarium* spp., *Penicillium* spp., *Rhizoctonia solani*, and *Rhizopus* spp. on field corn, sweet corn and popcorn.

**Section 9: Recommended Uses**

Apply Vortex FL Seed Treatment Fungicide using standard commercial seed treatment equipment with closed mixing/loading ONLY. This product needs to be diluted with water just prior to application to ensure uniform coverage. Uniform application of seed is necessary to ensure optimum performance.

CROP	PESTS	APPLICATION RATE	DIRECTIONS
Corn (field, sweet and popcorn )	<p><u>Diseases controlled:</u></p> <p>Seed rot / pre-emergence damping off caused by seed-borne <i>Aspergillus</i> spp., <i>Cladosporium</i> spp., <i>Fusarium</i> spp. and <i>Rhizopus</i> spp.</p> <p>Seedling blight caused by seed-borne <i>Fusarium</i> spp.</p> <p>Seed rot / pre-emergence damping off and seedling blight caused by soil-borne <i>Fusarium</i> spp.</p> <p>Seed rot/ pre-emergence damping-off caused by soil-borne <i>Rhizoctonia solani</i></p> <p><u>Diseases suppressed:</u></p> <p>Seed rot / pre-emergence damping-off caused by seed-borne <i>Penicillium</i> spp.</p>	Apply 5.6 mL of Vortex FL Seed Treatment Fungicide per 100 kg seed.	<p>Use only in treating equipment which can accurately control application rates and provide good distribution of the chemical onto the seed in the mixing chamber. Not for use in hopper box, slurry-box or similar seed treatment applications.</p> <p>This product contains no dye. An appropriate seed colourant must be applied.</p>

## TANK MIXTURES:

For the control of damping-off caused by *Pythium* spp., mix the recommended rate for Vortex FL Seed Treatment Fungicide with Allegiance FL Seed Treatment Fungicide at 6.2 mL/100 kg seed. Allegiance FL Seed Treatment Fungicide is not registered for use on popcorn

Vortex FL Seed Treatment Fungicide, or Vortex FL Seed Treatment Fungicide + Allegiance FL Seed Treatment Fungicide, may also be mixed with Poncho 600 FS at label rates for control of the insect pests on the Poncho 600 FS label.

When used in a tankmix, follow all use directions and the most restrictive precautions on the individual product labels.

## Section 10: Application Cautions

**COLOURATION OF TREATED SEED:** This product contains no colourant. An appropriate colourant must be added when this product is applied to seed. Vortex FL Seed Treatment Fungicide is ONLY for use by commercial seed treatment applicators using closed mixing/loading equipment. Regulations pertaining to colouration of treated seed enforced under the *Seeds Act* must be strictly adhered to when using this product.

**SEED QUALITY:** Laboratory and field studies have shown that Vortex FL Seed Treatment Fungicide applied to corn will not adversely affect germination. Treatment of highly mechanically damaged seed, or seed of known low vigor and poor quality, may result in reduced germination and/or reduction of seed and seedling vigor. Treatment of mechanically scarred or damaged seed, or of seed known to be of low germ, low vigour and poor quality is not recommended. Treat and conduct germination tests on a small portion of seed before committing the total seed lot to a selected chemical treatment. Due to seed quality conditions beyond the control of Bayer, no claims are made to guarantee germination of carry-over seed.

## Section 11: Use Limitations

### USE RESTRICTIONS:

- Do not use treated seed for food, feed or oil processing.
- Do not store treated seed above 25°C or in direct sunlight.

### LABELLING TREATED SEED:

All bags containing treated seed must be labelled or tagged as follows: “This seed has been treated with Vortex FL Seed Treatment Fungicide, which contains ipconazole. DO NOT use for feed, food or oil processing. Store away from feeds and other foodstuffs. Handlers of treated seeds must wear a long-sleeved shirt, long pants, chemical-resistant gloves and shoes and socks.”

## Section 12: Resistance Management Recommendations

For resistance management, please note that Vortex FL Seed Treatment Fungicide contains a Group 3 fungicide. Any fungal population may contain individuals naturally resistant to Vortex FL Seed Treatment Fungicide and other Group 3 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay fungicide resistance:

- Where possible, rotate the use of Vortex FL Seed Treatment Fungicide or other Group 3 fungicides with different groups that control the same pathogens.
- Use tank mixtures with fungicides from a different group when such use is permitted.
- 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 fungal populations for resistance development.
- If disease continues to progress after treatment with this product, do not increase the use rate. Discontinue use of this product, and switch to another fungicide with a different target site of action, if available.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance contact Bayer CropScience Inc at 1-888-283-6847 or at [www.bayercropscience.ca](http://www.bayercropscience.ca).