# INSURE® CEREAL FX4 Fungicide Seed Treatment

#### SUSPENSION

For seed treatment use in barley, canary seed, annual canarygrass (grown for human consumption), oat, rye, triticale and wheat (all types)

# **COMMERCIAL (AGRICULTURAL)**

<b>ACTIVE INGREDIENT:</b>	Pyraclostrobin	16.7 g/L
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Contains 1,2-benzisothiazolin-3-one at 0.03020%, 5-chloro-2-methyl-4-isothiazolin-3-one at 0.00121%, 2-methyl-4-isothiazolin-3-one at 0.000406% and 2-bromo-2-nitropropane-1,3-diol at 0.02606%, as preservatives

# OR

Contains 1,2-benzisothiazolin-3-one at 0.00985%, 2-methyl-4-isothiazolin-3-one at 0.00985% and 2-bromo-2-nitropropane-1,3-diol at 0.0242%, as preservatives

# OR

Contains 1,2-benzisothiazolin-3-one at 0.03019%, 5-chloro-2-methyl-4-isothiazolin-3-one at 0.00121%, 2-methyl-4-isothiazolin-3-one at 0.00041% and 2-bromo-2-nitropropane-1,3-diol at 0.02617%, as preservatives

#### OR

Contains 1,2-benzisothiazolin-3-one at 0.02079%, 5-chloro-2-methyl-4-isothiazolin-3-one at 0.00104%, 2-methyl-4-isothiazolin-3-one at 0.00035% and 2-bromo-2-nitropropane-1,3-diol at 0.02441%, as preservatives

Warning, contains the allergen soy

**REGISTRATION NO. 33210** 

PEST CONTROL PRODUCTS ACT

READ THE LABEL BEFORE USING

**KEEP OUT OF REACH OF CHILDREN** 

# IN CASE OF EMERGENCY ENDANGERING LIFE OR PROPERTY INVOLVING THIS PRODUCT, CALL DAY OR NIGHT, 1-800-454-2673

**NET CONTENTS:** 0.1 L - Bulk

BASF Canada Inc. 100 Milverton Drive, 5<sup>th</sup> Floor Mississauga, Ontario L5R 4H1 1-877-371-2273

INSURE is a registered trade-mark of BASF SE, used with permission by BASF Canada Inc.

# **PRECAUTIONS**

# 1. KEEP OUT OF REACH OF CHILDREN.

- 2. 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 when seed is being treated or bagged.
- 3. When mixing, loading, treating, cleaning-up, or maintaining and repairing seed treatment equipment, bagging, sewing bags of treated seed, stacking, handling treated seed, or when transferring seed to a storage bin, wear coveralls over long-sleeved shirt, long pants, chemical-resistant gloves, shoes and socks and a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested.
- 4. When planting treated seed, wear a long-sleeved shirt, long pants, chemical-resistant gloves, shoes and socks. Wear a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested when transferring treated seed to the planter. Gloves and respiratory protection is not required during planting within a closed cab. A closed cab is a chemical-resistant barrier that completely surrounds the occupant of the cab and prevents contact with the pesticide or treated surfaces outside the cab.
- 5. Wash thoroughly after handling and before eating, drinking or smoking.
- 6. If clothing becomes contaminated, remove and wash separately from household laundry before reuse.

# **FIRST AID**

**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 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.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

# TOXICOLOGICAL INFORMATION

The patient should be treated symptomatically.

# STORAGE

- 1. Store in original tightly closed container and the ideal storage temperature is above freezing and below 30°C. If **INSURE CEREAL FX4** freezes, bring to room temperature and agitate prior to use.
- 2. To prevent contamination store this product away from food and feed.
- 3. Store in cool, dry, locked, well-ventilated area without floor drain.

# **DISPOSAL**

# 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, rinsed container unsuitable for any further use.

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

#### For Non-Returnable Containers

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- 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.

# **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.

# INSURE® CEREAL FX4 Fungicide Seed Treatment

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# **GENERAL INFORMATION**

**INSURE CEREAL FX4** is a ready-to-use broad spectrum fungicide seed treatment in a water-based formulation that provides preventive seed and seedling protection against seed-, soil-borne and seedling diseases in barley, canary seed, annual canarygrass (grown for human consumption), oat, rye, triticale and wheat (all types). Make all applications according to the use directions in this label.

**INSURE CEREAL FX4** is active against a wide range of diseases caused by *Fusarium* spp., *Pythium* spp., *Rhizoctonia solani*, and *Cochliobolus sativus* and is also active against a wide range of smuts and bunts.

# **DIRECTIONS FOR USE**

For use on farm and on closed transfer commercial seed treatment facilities. Closed transfer includes closed mixing, loading, calibrating and closed treatment equipment.

Apply INSURE CEREAL FX4 using standard slurry, gravity flow or mist-type seed treatment application equipment. Thorough seed coverage will offer the best protection of the seed from seed-, soil-borne, and seedling diseases. When used at the recommended rate of 300 mL/100 kg seed, no additional dyes or dilutions with water are needed unless recommended by the manufacturer of the seed treatment application equipment/machines. If so, increase the use rate proportionally to the dilution rate (e.g. add 100 mL of water to 300 mL of INSURE CEREAL FX4, then apply at 400 mL/100 kg seed). Please consult the seed treatment application equipment manufacturer in question for further directions.

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

# CROP SPECIFIC RECOMMENDATIONS FOR SEED TREATMENT

Crop	Target Disease	Product use rate in mL/ 100 kg seed	
Barley Canary seed Annual canarygrass (grown for human consumption) Oats Rye Triticale Wheat (all types)	<u>Diseases Controlled</u> : Seed rot / Pre-emergent damping-off caused by Fusarium spp., Rhizoctonia solani, Cochliobolus sativus, and Pythium spp.	300	
	Post-emergent damping-off caused by Fusarium spp., Rhizoctonia solani, and Pythium spp.		
	Seedling blight caused by <i>Fusarium</i> spp., Rhizoctonia solani, and <i>Pythium</i> spp.		
	Root rot caused by <i>Fusarium</i> spp., <i>Rhizoctonia solani</i> , and <i>Pythium</i> spp.		
	Loose smut ( <i>Ustilago tritici</i> ) - Rye, Triticale, Wheat		
	Common bunt ( <i>Tilletia tritici</i> , <i>T. lavies</i> ) - Rye, Triticale, Wheat		
	True loose smut ( <i>Ustilago nuda</i> ) - Barley		
	Covered smut ( <i>Ustilago hordei</i> ) - Barley		
	False loose smut ( <i>Ustilago nigra</i> ) - Barley		
	Loose Smut ( <i>Ustilago avenae</i> ) - Oat		
	Covered Smut ( <i>Ustilago kolleri</i> ) – Oat		
	<u>Diseases Suppressed</u> : Fusarium crown and root rot caused by <i>Fusarium</i> spp.		
	Seedling blight caused by Cochliobolus sativus		
	Root rot caused by Cochliobolus sativus		
Annual canarygrass seeds can be harvested for human consumption.			

USE RESTRICTIONS

- Do not use treated seed for food, feed or oil processing.
- Do not store **INSURE CEREAL FX4** near feed or foodstuffs.
- Do not contaminate feed or foodstuffs.
- 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.
- Do not contaminate irrigation or drinking water or aquatic habitats by cleaning of equipment or disposal of wastes.

- **INSURE CEREAL FX4** contains sufficient pigment to conspicuously color and coat treated seed. Regulations pertaining to the coloration of treated seed enforced under the "Seeds Act" must be strictly adhered to when using this product.
- Thoroughly clean auger after handling treated seed before using same auger for handling commercial or feed grains.

#### SEED LABELLING

TREATED SEED MUST BE LABELLED AS FOLLOWS:

"This seed has been treated with **INSURE CEREAL FX4** containing fungicides pyraclostrobin, fluxapyroxad, triticonazole and metalaxyl. Workers handling or planting treated seed must wear long-sleeved shirt, long pants, chemical-resistant gloves, shoes and socks. Workers handling treated seed should wear suitable dust mask. DO NOT use for food, feed or oil processing. Store away from feed and food stuff.

Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned-up from the soil surface."

# **SEED STORAGE**

Treatment of highly mechanically damaged seed, seed known to be of low vigour and poor quality, or seed where the storage conditions were poor (high humidity in storage, moisture within grain storage facility, or grain sitting on the ground) may result in reduced germination and/or reduction of seed and seedling vigour. Treat and conduct germination tests on a small test sample of seed before treating commercial quantities with **INSURE CEREAL FX4**. Due to seed quality and seed storage conditions beyond the control of BASF Canada, BASF Canada makes no claims or guarantees as to germination of carry-over seed treated with **INSURE CEREAL FX4**.

# **RESISTANCE-MANAGEMENT RECOMMENDATIONS**

For resistance management, **INSURE CEREAL FX4** contains Group 3, 4, 7, and 11 fungicides. Any fungal population may contain individuals naturally resistant to **INSURE CEREAL FX4** and other Group 3, 4, 7, and 11 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 **INSURE CEREAL FX4** or other Group 3, 4, 7, and 11 fungicides with different groups that control the same pathogens.
- Use tank mixtures with fungicide from a different group that is effective on the target pathogen when such use is permitted.

- Fungicide use should be based on an integrated disease management program that
  includes scouting, historical information related to pesticide use and crop rotation and
  considers host plant resistance, impact of environmental conditions on disease
  development, disease thresholds, as well as cultural, biological and other chemical control
  practices.
- Monitor treated fungal populations for resistance development. Notify BASF Canada Inc. if reduced sensitivity of the pathogen to INSURE CEREAL FX4 is suspected.
- 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 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 and to report suspected resistance, contact BASF Canada representatives at 1-877-371-2273 or at www.basf.ca.

# **ENVIRONMENTAL HAZARDS**

Ensure proper soil incorporation of the seeds. **DO NOT** feed treated seed to, or otherwise expose, wildlife or domestic birds. If treated seed is spilled outdoors or in areas accessible to birds, promptly clean up or bury to prevent ingestion. Ensure proper disposal of any surplus treated seed not intended for later planting. **DO NOT** contaminate domestic or irrigation water supplies, lakes, streams, ponds or any body of water with the chemical, used containers, treated seed or bags, which have held treated seed. **DO NOT** contaminate water by cleaning of equipment or disposal of wastes. Unused or leftover treated seed should not be stored where there is a chance of it becoming mixed with untreated seed. Toxic to aquatic organisms.

The use of this product may result in contamination of groundwater particularly in areas where soils are permeable (e.g. sandy soil) or the water table is shallow. To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to, heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (e.g. compacted or fine-textured soils such as clay).

Avoid application of this product when heavy rain is forecast.

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