Teraxxa® F4

Insecticide and Fungicide Seed Treatment

Seed treatment for insect and disease control or suppression in small cereal grains

Suspension Concentrate

COMMERCIAL (AGRICULTURAL)

ACTIVE INGREDIENTS:	Broflanilide	16.7 g/L
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Contains 1,2-benzisothiazolin-3-one at 0.0297%, 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0012%, 2-methyl-4-isothiazolin-3-one at 0.0004%, 2-bromo-2-nitropropane-1,3-diol at 0.0258%, as preservatives **OR**

Contains 1,2-benzisothiazolin-3-one at 0.0204%, 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0010%, 2-methyl-4-isothiazolin-3-one at 0.00034%, 2-bromo-2-nitropropane-1,3-diol at 0.0240%, as preservatives

Warning, contains the allergen soy

REGISTRATION NO. 33667

PEST CONTROL PRODUCTS ACT

KEEP OUT OF REACH OF CHILDREN

READ THE LABEL AND THE BOOKLET BEFORE USING

POTENTIAL SKIN SENSITIZER

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

NET CONTENTS: 0.1 L to Bulk

5025 Creekbank Road Building A, 2nd Floor Mississauga, Ontario L4W 0B6 1-877-371-2273

TERAXXA is a registered trade-mark of BASF Agrochemical Products B.V., used under license by BASF Canada Inc.

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

Treat symptomatically.

PRECAUTIONS

- 1. KEEP OUT OF REACH OF CHILDREN.
- 2. Harmful if swallowed. Do not take internally.
- 3. Avoid contact with eyes, skin and clothing. Potential skin sensitizer.
- 4. Wash thoroughly after handling and before eating, drinking or smoking.
- 5. Apply only in a way that this product will not contact workers or other persons, either directly or through drift. Only workers wearing the personal protective equipment listed in the booklet may be in the area where treating, bagging, sewing and/or stacking is occurring.
- 6. Keep treated seeds out of reach of children and animals.
- 7. Refer to the booklet for personal protective equipment.
- 8. If clothing becomes contaminated, remove and wash separately from household laundry before reuse.
- 9. Clean equipment thoroughly after use.

ENVIRONMENTAL PRECAUTIONS

Toxic to aquatic organisms.

This product demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Broflanilide is toxic to bees. Dust generated during planting of treated seed may be harmful to bees and other pollinators.

To help minimize the dust generated during planting, refer to the "Pollinator Protection and Responsible Use of Treated Seed - Best Management Practices" on the Health Canada webpage on pollinator protection at www.canada.ca/pollinators.

Do not load or clean planting equipment near bee colonies, and avoid places where bees may be foraging, such as flowering crops or weeds.

When turning on the planter, avoid engaging the system where emitted dust may contact honeybee colonies.

Toxic to birds. Spilled or exposed seeds and dust must be incorporated into the soil or cleaned up from the soil surface.

STORAGE

- 1. Prevent from freezing; however, in the instance that the product freezes, allow to thaw at room temperature for 24 hours and agitate well prior to use.
- 2. To prevent contamination, store this product away from food and feed.
- 3. Store in original tightly closed container in a 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 Returnable Containers

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

For Non-Returnable containers

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For information on the 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.

Teraxxa® F4

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Seed treatment for insect and disease control or suppression in small cereal grains

Suspension Concentrate

COMMERCIAL (AGRICULTURAL)

Contains 1,2-benzisothiazolin-3-one at 0.0297%, 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0012%, 2-methyl-4-isothiazolin-3-one at 0.0004%, 2-bromo-2-nitropropane-1,3-diol at 0.0258%, as preservatives **OR**

Contains 1,2-benzisothiazolin-3-one at 0.0204%, 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0010%, 2-methyl-4-isothiazolin-3-one at 0.00034%, 2-bromo-2-nitropropane-1,3-diol at 0.0240%, as preservatives

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Treat symptomatically.

PRECAUTIONS

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- 2. Harmful if swallowed. Do not take internally.
- 3. Avoid contact with eyes, skin and clothing. Potential skin sensitizer.
- 4. Wash thoroughly after handling and before eating, drinking or smoking.
- 5. Apply only in a way that this product will not contact workers or other persons, either directly or through drift. Only workers wearing personal protective equipment listed below may be in the area where treating, bagging, sewing and/or stacking is occurring.
- 6. Keep treated seeds out of reach of children and animals.
- 7. Clean equipment thoroughly after use.

Personal Protective Equipment

If clothing becomes contaminated, remove and wash separately from household laundry before reuse.

Seed Types	Tasks	PPE/ Engineering Controls		
For Commercial Seed Treatment (including mobile treaters)				
All Seed Types	Treating / Bagging / Sewing / Stacking	Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks, shoes and a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested during mixing, loading, treating, calibrating, bagging, sewing seed bags, stacking and any other activities involving handling treated seeds.		
	Clean-up and repair activities	Wear chemical-resistant coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks, chemical-resistant footwear and a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested during clean-up and repair activities.		
For On-Farm Seed Treatment				
All Seed Types	Treating	Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks, and shoes during mixing, loading, treating, calibrating, clean-up, repair and any other activities involving handling treated seeds. Wear a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested when transferring treated seed to the planter/seeder.		
	Clean-up and repair activities			
For Planting Treated Seeds				
All Seed Types	Planting	Wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during planting and handling of treated seeds. Wear a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested when transferring treated seed to the planter/seeder.		
	Closed-cab tractor	During application, use a closed cab that provides both a physical barrier and respiratory protection (such as dust/mist filtering and/or vapour/gas purification system). The closed cab must have a chemical-resistant barrier that totally surrounds the occupant and prevents contact with pesticides outside the cab. Gloves are not required within the closed cab.		

ENVIRONMENTAL PRECAUTIONS

Toxic to aquatic organisms.

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Broflanilide is toxic to bees. Dust generated during planting of treated seed may be harmful to bees and other pollinators.

To help minimize the dust generated during planting, refer to the "Pollinator Protection and Responsible Use of Treated Seed - Best Management Practices" on the Health Canada webpage on pollinator protection at www.canada.ca/pollinators.

Do not load or clean planting equipment near bee colonies, and avoid places where bees may be foraging, such as flowering crops or weeds.

When turning on the planter, avoid engaging the system where emitted dust may contact honeybee colonies.

Toxic to birds. Spilled or exposed seeds and dust must be incorporated into the soil or cleaned up from the soil surface.

STORAGE

- 1. Prevent from freezing; however, in the instance that the product freezes, allow to thaw at room temperature for 24 hours and agitate well prior to use.
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GENERAL INFORMATION

Teraxxa F4 insecticide and fungicide seed treatment is a suspension concentrate (SC) that protects against damage caused by wireworm and certain seed and soil borne diseases. The insecticide component, Broflanilide, is a member of the Insecticide Resistance Action Committee (IRAC) Group 30 class of chemistry. The fungicide components Pyraclostrobin, Fluxapyroxad, Tritconazole and Metalaxyl are members of the FRAC Group 3, 4, 7 and 11.

Teraxxa F4 can be used in commercial treatment facilities and on-farm standard gravity flow or mist type treatment machines. **Teraxxa F4** can also be used in "On the Go" air seeder treatment systems.

DIRECTIONS FOR USE

All Crops

Apply recommended rates of **Teraxxa F4 insecticide and fungicide seed treatment** with seed treatment equipment as specified. Equipment should be checked frequently for proper calibration.

Apply **Teraxxa F4** as a water-based mixture using standard slurry or mist-type seed treatment application equipment. The exact amount of water needed to provide the mixture or slurry rate (mL/100 kg of seed) for optimum coverage is difficult to predict since weather conditions, hot or cold, seed type and surface, and equipment used all have a bearing on coverage. Consult a seed treatment specialist regarding slurry rates recommended for the crop seed to be treated with **Teraxxa F4**. The required amount of **Teraxxa F4** should then be diluted with the recommended amount of water that will provide uniform and complete coverage on the seed surface. Uniform application on seed and complete seed coverage are necessary for seed safety and best disease and insect protection. Seed should be sound and well cleaned prior to treatment.

Teraxxa F4 contains sufficient pigment to conspicuously colour and coat treated seed. Regulations pertaining to the colouration of treated seed enforced under the "Seeds Act" must be strictly adhered to when using this product.

Please read and follow all label guidelines (including precautions, limitations, rates and directions for use) for all mix partners.

Crop Application Rate Table

Cereals			
Pest	Application Rate mL/100 kg seed		
Insects controlled:			
Wireworm (all species)			
Diseases Controlled:			
Seed rot / Pre-emergent damping-off caused by Fusarium spp., Rhizoctonia solani, Cochliobolus sativus and Pythium spp.			
Post-emergent damping-off caused by Fusarium spp., Rhizoctonia solani and Pythium spp.	300 (20.5 g ai/100 kg seed)		
Seedling blight caused by Fusarium spp., Rhizoctonia solani and Pythium spp.	(20.5 g al/ 100 kg seed)		
Root rot caused by <i>Fusarium spp.</i> , <i>Rhizoctonia solani</i> and <i>Pythium spp</i> .			
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			
Diseases Suppressed:			
Fusarium crown and foot rot caused by <i>Fusarium</i> spp. Seedling blight caused by <i>Cochliobolus sativus</i> Root rot caused by <i>Cochliobolus sativus</i>			

Detailed Crop List - Barley, canary seed, annual canary grass (grown for human

consumption), oats, rye, triticale, wheat (all types: winter, spring and durum)

USE RESTRICTIONS

- Do not use for food, feed or oil processing. This seed is treated with broflanilide, pyraclostrobin, fluxapyroxad, triticonazole and metalaxyl.
- Store this product away from food or feed.
- 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.
- Thoroughly clean auger after handling treated seed before using same auger for handling commercial or feed grains.

SEED LABELLING

TREATED SEED (BULK OR BAGGED) MUST BE LABELLED AS FOLLOWS:

Keep out of reach of children and animals. Store away from feed and food stuff. DO NOT use for food, feed or oil processing. This seed is treated with **Teraxxa F4** containing broflanilide, pyraclostrobin, fluxapyroxad, triticonazole and metalaxyl.

Use only closed cab planting equipment when planting seeds treated with **Teraxxa F4**. Gloves are not required within the closed cab. During handling and planting treated seeds, wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes. Wear a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested when transferring treated seed to the planter/seeder.

Broflanilide is toxic to bees. Dust generated during planting of treated seed may be harmful to bees and other pollinators.

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Do not load or clean planting equipment near bee colonies, and avoid places where bees may be foraging, such as flowering crops or weeds.

When turning on the planter, avoid engaging the system where emitted dust may contact honeybee colonies.

Toxic to birds. Spilled or exposed seeds and dust must be incorporated into the soil or cleaned up from the soil surface.

A rotational plantback interval of 30 days must be observed for crops not listed on the label.

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 **Teraxxa F4**. 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 **Teraxxa F4**.

CROP ROTATION

Immediate plant-back is permitted for all labelled crops. A plant-back interval of 30 days is required for all crops not on the label.

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, **Teraxxa F4 insecticide and fungicide seed treatment** contains a Group 30 insecticide. Any insect population may contain individuals naturally resistant to **Teraxxa F4** and other Group 30 insecticides. The resistant individuals may dominate the insect population if this group of insecticides is used repeatedly in the same fields.

For resistance management, **Teraxxa F4** contains a Group 3, 4, 7 and 11 fungicides. Any fungal population may contain individuals naturally resistant to **Teraxxa F4** and other Group 3, 4, 7 and 11 fungicides. A gradual or total loss of pest control may occur over time if these fungicides 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 resistance:

- Where possible, rotate the use of **Teraxxa F4** or other Group 3, 4, 7 and 11 fungicide and Group 30 insecticide with different groups that control the same pests or pathogens.
- Insecticide and fungicide use should be based on an IPM program that includes scouting and record keeping and considers cultural, biological and other chemical control practices.
- Monitor treated pest populations for resistance development.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.

For further information or to report suspected resistance contact BASF at 1-877-371-2273 or at www.agsolutions.ca.