GROUP 28 INSECTICIDE

# FORTENZA® RED

SEED TREATMENT INSECTICIDE

**COMMERCIAL** 

SUSPENSION

Seed piece treatment insecticide for control of listed insect pests on labeled crops.

#### **ACTIVE INGREDIENT:**

Contains 1,2-benzisothiazolin-3-one at 0.037 % as a preservative. Contains 2-bromo-2-nitropropane-1,3-diol at 0.024 % as a preservative.

#### **CAUTION - EYE IRRITANT**

# READ THE LABEL AND BOOKLET BEFORE USING KEEP OUT OF THE REACH OF CHILDREN

REGISTRATION NO.:30898
PEST CONTROL PRODUCTS ACT

NET CONTENTS: 1 L to 1050 L

#### Syngenta Canada Inc.

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

Special Use Restrictions

Application to corn, cereals and soybean must be completed by commercial treaters (facilities and mobile treaters) with closed transfer systems only. Closed transfer includes closed mixing, loading, calibrating, and closed treatment equipment only. No open transfer of FORTENZA® RED is permitted during the commercial treatment of corn, soybeans or cereals.

In addition to above, for soybeans and cereals, on-farm seed treatment and on-farm open transfer of FORTENZA RED is permitted. Potato seed pieces can be treated on-farm and must use closed transfer systems.

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

**IF POISONING IS SUSPECTED,** call a doctor or poison control centre **IMMEDIATELY**. 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. 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 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 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.

## 3.0 TOXICOLOGICAL INFORMATION

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

#### 4.0 PRECAUTIONS

- 1. Hazard to humans and domestic animals.
- 2. KEEP OUT OF THE REACH OF CHILDREN and domestic animals.
- 3. May irritate eyes. Avoid contact with eyes.
- 4. Wash hands and face after handling and before eating or smoking.

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 (PPE)

When treating potato seed pieces: Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks, shoes and goggles during mixing, loading, application, clean-up, and repair.

When handling or planting treated potato seed pieces or when working with or around equipment used to transport treated potato seed pieces, workers must wear a long-sleeved shirt, long pants, gloves, socks and boots. For good hygiene practice, it is recommended to wear a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested during all job activities. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. DO NOT use open treating equipment when treating potato seed pieces. This product must be applied using a closed treatment system.

When treating corn: This treatment must be applied in a commercial seed treatment facility (or by mobile treaters) using closed transfer, including closed mixing, loading, calibrating, and closed treatment equipment. Workers (treaters, baggers, sewer, stackers, forklift drivers and cleaners) must wear a long-sleeved shirt and long pants, chemical-resistant gloves, socks and shoes. For good hygiene practice, it is recommended to wear a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested during all job activities.

When treating soybeans and cereals: This treatment may be applied in a commercial seed treatment facility (or by mobile treaters) or on-farm. Workers (treaters, baggers, sewer, stackers, forklift drivers and cleaners) must wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes. For good hygiene practice, it is recommended to wear a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested during all job activities.

Wash personal protective equipment (PPE) after each use. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables are available, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### 6.0 ENVIRONMENTAL PRECAUTIONS

Toxic to aquatic organisms.

Toxic to bees. This product is systemic and bees can be exposed to product residues in flowers, leaves, pollen and/or nectar resulting from seed treatment applications. However, when this product is applied and used according to label directions, risk to bees is expected to be negligible. Follow best management practices to help minimize dust exposure to pollinators during planting on treated seed; refer to the complete guidance "Pollinator Protection: reducing risk from treated seed" on the Health Canada webpage (www.canada.ca/pollinators).

Any spilled or exposed seeds and dust must be incorporated into the soil or cleaned up from the soil surface.

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.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

#### 7.0 USE RESTRICTIONS

- 1. Avoid contamination of feed and foodstuffs.
- 2. All bags containing treated seed for sale or use in Canada must be labelled or tagged as follows: These seeds have been treated with the insecticide cyantraniliprole. When handling and planting treated seed, workers must wear a long sleeved shirt and long pants, chemical-resistant gloves, socks and shoes. A closed-cab tractor is required during planting of treated small grain cereal seeds. For all other seeds, open cab planting is permitted. For good hygiene practice, it is recommended to wear a NIOSHapproved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested during all job activities. Any spilled or exposed seeds and dust must be incorporated into the soil or cleaned up from the soil surface. Do not use for food, feed or oil processing. Store away from food and feed. Toxic to bees. Follow best management practices to help minimize dust exposure to pollinators during planting of treated seed; refer to the complete guidance "Pollinator Protection: reducing risk treated seed" the Health Canada website on (www.healthcanada.gc.ca/pollinators).

#### 8.0 STORAGE

Store this product away from food or feed. Ideal storage temperature for the products is above freezing and below 30 °C. Repeated freeze-thawing of FORTENZA RED 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.

#### 9.0 DISPOSAL

Dispose of all excess treated seed. Left over treated seed may be double-sown around the headland or buried away from water sources in accordance with local requirements. Dispose of seed packaging in accordance with local requirements. DO NOT re-use bags from treated seed to handle food or feed products.

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**

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- 1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
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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 (1-800-FASTMED)

FORTENZA® is a trademark of a Syngenta Group Company.

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Pamphlet

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

#### 10.0 PRODUCT INFORMATION

FORTENZA RED is an insecticide belonging to the chemical class of diamides. The length of control of the major insect pests will vary depending on the product use rate, insect pressure, crop growth and maturity, and soil and environmental conditions. When rate ranges are given, use the higher rate when insect pressure is expected to be high.

FORTENZA RED Seed Treatment provides early season reduction of feeding damage from bean leaf beetle and protection from cutworm in soybeans.

FORTENZA RED Seed Treatment provides early in-season protection against wireworm feeding in small grain cereals.

#### 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.

# 11.2 Application Method

Shake or mix well before using.

#### 11.2.1 All Seed

Apply FORTENZA RED as a water-based slurry utilizing standard slurry seed treatment equipment that provides uniform seed coverage. Uneven or incomplete seed coverage may not give the desired level of insect control. Thoroughly mix the specified amount of FORTENZA

RED into the required amount of water for the slurry treater and dilution rate to be used. 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.

A tank-mixture with a registered fungicide can be applied to seed to protect against pathogens. Please read and follow all label guidelines (including precautions, limitations, rates and directions for use) for all tank-mix partners.

In some cases, tank mixing a pest control product with another pest control product or a fertilizer can result in biological effects that could include, but are not limited to: reduced pest efficacy or increased host crop injury. The user should contact Syngenta Canada Inc. at 1-877-964-3682 for information before mixing any pesticide or fertilizer that is not specifically recommended on this label.

#### 11.2.2 Potatoes

Cut seed is particularly vulnerable to excess moisture. Too much moisture will induce seed decay. FORTENZA RED has been designed to be delivered in very low volumes of liquid to ensure good coverage without increasing tuber decay. Do not add excess water to the cut seed.

Store cut seed at or below 7 °C. Temperatures above 10 °C promote soft rot in seed.

Apply only in areas with adequate ventilation or in areas that are equipped to remove mist or dust.

If soil conditions are ideal, plant the treated potatoes immediately after application; however if soil is predicted to be cold and wet, either a) wait to cut, treat, plant until conditions are favorable or b) cut, treat and store. If cutting, treating and storing, potatoes can be treated with an inert dust to improve wound healing. Store properly until conditions improve by making sure that there is adequate cool air (7-10 °C) movement through the pile of cut seed potatoes and a relative humidity of 85-90%. Cut and treated seed should not be piled above 1.8 m in height. When transporting cut and FORTENZA RED treated seed make sure the seed is covered.

When treating cut seed, FORTENZA RED can be followed with a dust/talc treatment to improve suberization.

Avoid using liquid seed treatment on excessively sprouted seed.

**Note:** Treatment of highly damaged or bruised potato seed, or seed known to be of low vigor and poor quality, or potato seed that is deemed "physiologically old" may result in reduced germination and/or reduction of seed and seedling vigor and multiple stems from germination of the seed. When in doubt or if the status/condition of the potato seed tubers is unknown, then treat a small sample batch of the same potato seed load with FORTENZA RED using recommended rates, equipment and application procedures; before treating the total seed lot. Conduct this test on a small batch of the potato seed and observe the germination, emergence, and stem count from the germinating seed. Only if the data confirms that the seed treated with FORTENZA RED is acceptable then proceed treating the rest of the seed load from which the sample was taken. Due to seed quality, seed condition and seed storage conditions beyond the control of Syngenta no claims are made to guarantee the germination and or performance of the potato seed tuber from treatment with FORTENZA RED.

# 11.2.3 Soybean, Corn and Cereals

This product contains a pigment that will colour 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. Regulations pertaining to colouration of treated seed enforced under the "Seeds Act" must be strictly adhered to when using this product.

Note: 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. Treat using equipment similar to that planned for treating the total seed lot. Conduct germination tests on a small portion of the 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 Canada Inc., no claims are made to guarantee the germination of carry-over seed.

#### 12.0 CROP USE DIRECTIONS

# 12.1 Potato

POTATO	
CROP	Potato
PEST <sup>1</sup>	Colorado potato beetle
RATE	10 – 22.5 mL/100 kg seed
APPLICATION METHOD	Potato seed piece treatment
NOTES	<sup>1</sup> Protection provided during early to mid-season growth and development of
	potatoes only
RESTRICTIONS	Do not apply any subsequent application of a Group 28 Insecticide (for
	example, in-furrow, soil or foliar application) following FORTENZA RED
	potato seed piece treatment.

# 12.2 Corn

CORN	
CROP	Corn, field, pop and sweet
PEST	Cutworm
RATE	0.125 - 0.25 mg ai/seed (50 - 100 g ai/100 kg seed) or 0.21 – 0.42 μL product/seed (83 - 167 mL /100 kg seed)
APPLICATION METHOD	Seed treatment
NOTES	For additional insect control, FORTENZA RED can be tank mixed with CRUISER® 5FS Seed Treatment Insecticide in commercial seed treatment facilities with closed transfer including closed mixing, loading, calibrating, and closed treatment equipment only. For disease control, FORTENZA RED can be tank mixed with APRON XL® LS, MAXIM® XL, DYNASTY® 100FS, MAXIM QUATTRO Seed Treatments and/or VIBRANCE® 500FS in commercial seed treatment facilities. When tank mixes are permitted, read and observe all label directions, including rates and restrictions for each product used in the tank mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on both product labels.
RESTRICTIONS	Do not apply any subsequent application of a Group 28 Insecticide (for example, in-furrow, soil or foliar application) following FORTENZA RED seed treatment.
CROP	Corn, field, pop and sweet
PEST	Wireworms, European chafer and suppression of seedcorn maggot
RATE	0.25 mg ai/seed (100 g ai/100 kg seed) or 0.42 μL product/seed (167 mL /100 kg seed)
APPLICATION METHOD	Seed treatment
NOTES	For additional insect control, FORTENZA RED can be tank mixed with CRUISER 5FS Seed Treatment Insecticide in commercial seed treatment facilities with closed transfer including closed mixing, loading, calibrating, and closed treatment equipment only. For disease control, FORTENZA RED can be tank mixed with APRON XL LS, MAXIM XL, DYNASTY 100FS, MAXIM QUATTRO Seed Treatments and/or VIBRANCE 500FS in commercial seed treatment facilities. Read the label directions for each product and follow the most restrictive label precautions and limitations.
RESTRICTIONS	Do not apply any subsequent application of a Group 28 Insecticide (for example, in-furrow, soil or foliar application) following FORTENZA RED seed treatment.

# 12.3 Cereals

CEREALS	
CROP	Small Cereal Grains, including barley, buckwheat, pearl millet, proso millet,
	oats, rye, teosinte, triticale, sorghum, and wheat (all types)
PEST (Suppression)	Wireworms
RATE	17 mL/100 kg seed (10 g ai/100 kg seed)
	Use 17 mL/100 kg seed for suppression of wireworms; however, if pressure
	is moderate to high or control is required, then treat crops at 33 - 50 mL/100
	kg of seed.
PEST (Controlled)	Wireworms
RATE	33 - 50 mL/100 kg seed (20 - 30 grams ai/100 kg seed)
	Use the higher rate when insect populations are expected to be high.
APPLICATION METHOD	Seed treatment
NOTES	To provide protection against crop injury caused by Wireworms, apply
	FORTENZA RED at 17 – 50 mL/100 kg of seed. For early season
	suppression only, treat at 17 mL/100 kg of seed. For fields with a history of
	moderate to high wireworm pressure or if control is required, then treat
	crops at 33 – 50 mL/100 kg of seed, using the higher rate when infestation
	pressure is considered to be heavy.
RESTRICTIONS	Do not apply any subsequent application of a Group 28 Insecticide (for
	example, in-furrow, soil or foliar application) following FORTENZA RED
	seed treatment.

# 12.4 Soybeans

12.7 Obybeans	
SOYBEANS	
CROP	Soybeans
PEST	Seed corn maggot, European chafer, June beetle and Black cutworm
RATE	41.5 - 83 mL/100 kg seed (25 - 50 g ai/100 kg seed)
	This rate is equivalent to 0.0628 – 0.1256 µL/seed (0.0378 – 0.0757 mg
	ai/seed), based on a seed weight of 6600 seeds/kg.
APPLICATION METHOD	Seed treatment
NOTES	Within the stated rate range, use higher rates when the pest pressure is
	expected to be high.
	FORTENZA RED may be mixed with APRON XL® LS, MAXIM® 480FS,
	DYNASTY® 100FS, APRON MAXX® RTA® or APRON MAXX RFC,
	VIBRANCE® 500FS and VIBRANCE MAXX RFC to control a broad
	spectrum of diseases. For protection from various insect pests,
	FORTENZA RED may be mixed with CRUISER® 5FS. For combined
	protection from labeled insect and soil- and seed-borne pathogens,
	FORTENZA RED may be mixed with CRUISER MAXX® Beans and
	VIBRANCE 500 FS. For protection from soybean cyst nematodes,
	FORTENZA RED may be mixed with CLARIVA™ pn. When tank mixes
	are permitted, read and observe all label directions, including rates and
	restrictions for each product used in the tank mix. Follow the more
	stringent label precautionary measures for mixing, loading and applying
	stated on both product labels.
RESTRICTIONS	Do not apply any subsequent application of a Group 28 Insecticide (for
	example, in-furrow, soil or foliar application) following FORTENZA RED
	seed treatment.

CROP	Soybeans
PEST	Wireworms, Bean leaf beetle* and Soybean Aphids**
RATE	83 mL/100 kg seed (50 g ai/100 kg seed) This rate is equivalent to 0.1256 μL/seed (0.0757 mg ai/seed), based on a seed weight of 6600 seeds/kg.
APPLICATION METHOD	Seed treatment
NOTES	FORTENZA RED may be mixed with APRON XL LS, MAXIM 480FS, DYNASTY 100FS, APRON MAXX RTA or APRON MAXX RFC, VIBRANCE 500FS and VIBRANCE MAXX RFC to control a broad spectrum of diseases. For protection from various insect pests, FORTENZA RED may be mixed with CRUISER 5FS. For combined protection from labeled insect and soil- and seed-borne pathogens, FORTENZA RED may be mixed with CRUISER MAXX Beans and VIBRANCE 500 FS. For protection from soybean cyst nematodes, FORTENZA RED may be mixed with CLARIVA pn. When tank mixes are permitted, read and observe all label directions, including rates and restrictions for each product used in the tank mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on both product labels.
RESTRICTIONS	Do not apply any subsequent application of a Group 28 Insecticide (for example, in-furrow, soil or foliar application) following FORTENZA RED seed treatment.

<sup>\*</sup> Use for early season feeding damage of bean leaf beetle.

When tank mixes are permitted, read and observe all label directions, including rates and restrictions for each product used in the tank mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on both product labels.

# 12.5 Rotational Restrictions

Plant back	Crops
interval	
0 days	Crop Subgroup 1B (Root Vegetables, except sugar beet); Crop Subgroup 1C (Tuberous and Corm Vegetables); Crop Group 2 (Leaves of Root and Tuber Vegetables); Crop Group 3-07 (Bulb Vegetables); Crop Group 4 (Leafy Vegetables, except Brassica vegetables); Crop Group 5 (Brassica (Cole) Leafy Vegetables); Crop Group 6 (Legume Vegetables, Succulent or Dried); Crop Group 7 (Foliage of legume vegetables); Crop Group 8-09 (Fruiting Vegetables); Crop Group 9 (Cucurbit Vegetables); Crop Subgroup 13-07A (Caneberries); Crop Subgroup 13-07B (Bushberries); Crop Subgroup 13-07H (Low Growing Berries, except Strawberries); Crop Group 15 (Cereal grains); Crop Group 20 (Oilseeds); peanuts; strawberries
30 days	Sugar beet; Crop Group 16 (Forage, fodder, and straw of cereal grains); Crop Group 17 (Grass forage, fodder, and hay); Crop Group 18 (Nongrass animal feeds: Forage, fodder, straw and hay)
365 days	Other crops

#### 13.0 RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, please note that FORTENZA RED contains a Group 28 insecticide (cyantraniliprole, belonging to the diamide class of chemistry). Any insect population may

<sup>\*\*</sup>Early season reduction of soybean aphid populations

contain individuals naturally resistant to FORTENZA RED and other Group 28 insecticides. The resistant individuals may dominate the insect population if this group of insecticides is used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. 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.

# To delay insecticide resistance:

Where possible, rotate the use of FORTENZA RED or other Group 28 insecticides with different groups that control the same pests in a field.

Use tank mixtures with miticides/insecticides from a different group when such use is permitted.

Insecticide use should be based on an IPM program that includes scouting, record keeping, and considers cultural, biological and other chemical control practices.

Monitor treated pest populations for resistance development. If resistance is suspected, do not reapply FORTENZA RED or other Group 28 insecticides.

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 company representatives at 1-87-SYNGENTA (1-877-964-3682) or at <a href="https://www.syngenta.ca">www.syngenta.ca</a>.

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