GROUP 1 4 12 FUNGICIDES

# **APRON® ADVANCE**

#### **SEED TREATMENT**

SUSPENSION

#### **AGRICULTURAL**

A seed treatment product for control of certain seed-borne and soil-borne diseases of dry beans (including lupins and dry faba beans), dry peas, chickpeas and lentils.

### **ACTIVE INGREDIENTS:**

Thiabendazole	150 g/L
Fludioxonil	25 g/L
Metalaxyl-M and S-isomer	20 g/L

Contains 1,2-benzisothiazolin-3-one at 0.015% as a preservative.

# READ THE LABEL AND ATTACHED PAMPHLET BEFORE USING KEEP OUT OF REACH OF CHILDREN AND ANIMALS

REGISTRATION NO: **30627**PEST CONTROL PRODUCTS ACT

NET CONTENTS: 1 L to 1050 L

### ALL SEED TREATED WITH THIS PRODUCT MUST BE CONSPICUOUSLY COLOURED

For use with commercial seed treaters (facilities and mobile treaters).

# Syngenta Canada Inc.

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

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. The user assumes the risk to persons or property that arises from any such use of this product.

### 2.0 FIRST AID

**IF POISONING IS SUSPECTED, IMMEDIATELY** contact a physician or a poison control centre. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**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 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 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 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.

#### 3.0 TOXICOLOGICAL INFORMATION

NOTE TO PHYSICIAN: Treat symptomatically.

#### 4.0 PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN AND ANIMALS. Wash hands and face after handling and before eating or smoking. 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 during application.

For use with commercial seed treaters (facilities and mobile treaters).

Do not contaminate food, feed or domestic water supplies.

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)

<u>For On-Farm Seed Treatment</u>: Workers must wear cotton coveralls over a long-sleeved shirt and long pants, hat, chemical-resistant gloves, and a NIOSH/MSHA approved dust mask during mixing, loading, treating, clean-up, and maintenance of seed treatment equipment.

<u>For Commercial Seed Treatment</u>: Workers must wear chemical-resistant coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves during mixing, loading, treating, clean-up, maintenance of seed treatment equipment, and bagging, sewing or stacking of bagged treated seed. Wear a NIOSH/MSHA approved dust mask when bagging or sewing bags of treated seed or when transferring seed to a storage bin.

#### 6.0 ENVIRONMENTAL HAZARDS

This product is TOXIC to fish and other aquatic organisms. Do not apply directly to aquatic 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 supplies or aquatic habitats by cleaning of equipment or disposal of wastes. Treated seed is TOXIC to birds. Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned up from the soil surface.

### 7.0 USE RESTRICTIONS

- 1. Do not use treated seed for food, feed or oil purposes.
- 2. Do not plant any crop other than dry beans, dry peas, chickpeas or lentils within 30 days to fields in which treated seeds were planted.

#### **NOTE**

All bags containing treated seed for sale or use in Canada must be labeled or tagged as follows: "This seed has been treated with thiabendazole, fludioxonil and metalaxyl-M and S-isomer fungicides. Do not use for food, feed or oil purposes. Keep out of reach of children and animals. Store away from feeds and foodstuffs. When handling treated seed, wear a long-sleeved shirt, long pants, and chemical resistant gloves. Do not plant any crop other than dry beans, dry peas, chickpeas or lentils within 30 days to fields in which treated seeds were planted. For dry peas, do not graze treated crops or cut for forage or hay within 65 days of planting. For all other labelled crops, do not graze treated crops or cut for forage or hay within 30 days of planting. Treated seed is TOXIC to birds. Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned up from the soil surface."

#### 8.0 STORAGE

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

### 9.0 DISPOSAL

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, rinsed container unsuitable for future 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 reuse this container for any other purpose.

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

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**PAMPHLET** 

# **TABLE OF CONTENTS**

NOTICE TO USER	Section Number
NOTICE TO USER	1.0
FIRST AID	2.0
TOXICOLOGICAL INFORMATION	3.0
PRECAUTIONS	4.0
PERSONAL PROTECTIVE EQUIPMENT (PPE)	5.0
ENVIRONMENTAL HAZARDS	6.0
USE RESTRICTIONS	7.0
STORAGE	
DISPOSAL	9.0
PRODUCT INFORMATION	10.0
DIRECTIONS FOR USE	
General Information Seed Treatment and Inoculants	
CROP USE DIRECTIONS	12.0
RESISTANCE MANAGEMENT RECOMMENDATIONS	13.0

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### 7.0 USE RESTRICTIONS

- 3. Do not use treated seed for food, feed or oil purposes.
- 4. Do not plant any crop other than dry beans, dry peas, chickpeas or lentils within 30 days to fields in which treated seeds were planted.

### **NOTE**

All bags containing treated seed for sale or use in Canada must be labeled or tagged as follows: "This seed has been treated with thiabendazole, fludioxonil and metalaxyl-M and S-isomer fungicides. Do not use for food, feed or oil purposes. Keep out of reach of children and animals. Store away from feeds and foodstuffs. When handling treated seed, wear a long-sleeved shirt, long pants, and chemical resistant gloves. Do not plant any crop other than dry beans, dry peas, chickpeas or lentils within 30 days to fields in which treated seeds were planted. For dry peas, do not graze treated crops or cut for forage or hay within 65 days of planting. For all other labelled crops, do not graze treated crops or cut for forage or hay within 30 days of planting. Treated seed is TOXIC to birds. Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned up from the soil surface."

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#### 10.0 PRODUCT INFORMATION

APRON ADVANCE Seed Treatment controls certain seed-borne and soil-borne diseases of dry beans, dry peas, chickpeas and lentils. The formulation contains a colouring agent which will colour the treated seed. Thorough seed coverage will offer the best protection of the seed from seed, soil borne, and seedling diseases.

APRON ADVANCE Seed Treatment is active against a wide range of plant diseases caused by *Fusarium* spp., *Rhizoctonia* spp., *Pythium* spp., *Ascochyta* spp. and seed-borne *Colletotrichum* spp. and *Botrytis* spp.

**Note**: Treatment of highly mechanically scarred or damaged seed, or seed known to be of low vigour and poor quality, except for the purpose of curative control of existing disease pests, may result in reduced germination, reduced emergence and/or reduction of seed and seedling vigour. 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 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 treated seed.

Note: Experience has shown that strains of fungus resistant to metalaxyl-M may develop. Failure

to control the disease will likely result in crop damage and/or yield losses. Since the occurrence of resistance cannot be foreseen, Syngenta Canada Inc. accepts no responsibility for any loss of, or damage to, crops resulting from the failure of APRON ADVANCE Seed Treatment to control the resistant fungus strains. If disease appears in a treated field, consult the government extension specialist immediately.

#### 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.

APRON ADVANCE Seed Treatment is a seed treatment formulation for use in commercial seed treatment plants, and for on-farm treatment using auger treating only; do not use in hopper box or seed drill. The equipment must provide uniform coverage of APRON ADVANCE Seed Treatment on the seed. Uneven seed coverage may not give the desired level of disease control. Allow the seed to dry before bagging, storing or seeding.

### 11.2 Seed Treatment and Inoculants

APRON ADVANCE Seed Treatment is flexible with Rhizobium based inoculants. Depending on compatibility at application, inoculants can be applied as a tank mix through simultaneous or sequential applications. Please check with inoculant manufacturers for application and compatibility details prior to use. Consult the manufacturer of the application equipment planned to be used for suitability for this application and for instructions on operation and calibration of the equipment.

Ideal storage temperature of bulk material is above freezing and below 30 °C.

Seed treated with APRON ADVANCE Seed Treatment, or a combination of APRON ADVANCE Seed Treatment and seed inoculants, may not flow through a seed drill at the same rate as untreated seed. Recalibrate the seed drill before planting treated seed. **Mixing with inoculants may increase drying time while treating, extending the processing time.** 

This product contains a pigment which will colour the treated seed. However, users are responsible for ensuring that the treated seed, when dried and ready for bagging, storage or seeding 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.

### 12.0 CROP USE DIRECTIONS

Apply 100 mL of APRON ADVANCE Seed Treatment per 100 kg of seed 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 disease control. Thoroughly mix

the recommended amount of APRON ADVANCE Seed Treatment into the required amount of water for the slurry treater and dilution rate to be used. Slurry volumes will vary depending on seed size. Follow the manufacturer's application instructions for the seed treatment equipment being used. Maintain constant agitation of the slurry during the treatment. Allow the seed to dry before bagging.

Crop	Diseases Controlled
Dry Beans (including lupins and dry faba beans)	Seed rot/pre-emergence damping-off, and post-emergence damping-off caused by <i>Fusarium</i> spp., <i>Pythium</i> spp. and <i>Rhizoctonia</i> spp. Seedling blight caused by <i>Pythium</i> spp. Anthracnose caused by seed-borne <i>Colletotrichum</i> spp.
Chickpeas	*Seed-borne Ascochyta blight caused by <i>Ascochyta rabiei</i> Seed rot/pre-emergence damping-off, and post-emergence damping-off caused by <i>Fusarium</i> spp., <i>Pythium</i> spp. and <i>Rhizoctonia</i> spp. Seedling blight caused by <i>Fusarium</i> spp. and <i>Pythium</i> spp. Seed rot and seedling blight caused by seed-borne <i>Botrytis</i> spp.
Lentils	*Seed-borne Ascochyta blight caused by <i>Ascochyta lentis</i> Seed rot/pre-emergence damping-off, post-emergence damping-off and seedling blight caused by <i>Fusarium</i> spp., <i>Pythium</i> spp. and <i>Rhizoctonia</i> spp. Seedling root rot caused by <i>Fusarium</i> spp. Seed rot and seedling blight caused by seed-borne <i>Botrytis</i> spp.
Dry Peas	*Seed-borne Ascochyta blight and foot root caused by <i>Ascochyta pinodes</i> Seed rot/pre-emergence damping-off, post-emergence damping-off and seedling blight caused by <i>Fusarium</i> spp., <i>Pythium</i> spp. and <i>Rhizoctonia</i> spp.

<sup>\*</sup>Ascochyta-infected seed is an important vehicle for moving the disease into new areas of the field due the ability of the pathogen to readily transmit from the infected seed to seedlings. APRON ADVANCE Seed Treatment will minimize the growth of fungus on the seed and prevent the movement of fungus in the field. APRON ADVANCE Seed Treatment is an important tool in an integrated approach to ascochyta management in pulse crops.

# 13.0 RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, please note that APRON ADVANCE Seed Treatment contains Group 1, 4 and 12 fungicides. Any fungal population may contain individuals naturally resistant to APRON ADVANCE Seed Treatment and other Group 1, 4 and 12 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 APRON ADVANCE Seed Treatment or other Group 1, 4 and 12 fungicides with different groups that control the same pathogens.

Use tank mixtures with fungicides from a different group when such use is permitted.

Follow all appropriate directions, precautions, etc. as specified on the respective product labels.

The most conservative restrictions apply.

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 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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