GROUP	4A			INSECTICIDE	
GROUP	1	4	7	12	FUNGICIDES

CRUISER MAXX® VIBRANCE® PULSES

SEED TREATMENT

FUNGICIDES AND INSECTICIDE

COMMERCIAL - AGRICULTURAL

SUSPENSION

A seed treatment product for the control of certain chewing and sucking insects and seed- and soil-borne diseases of pulse crops.

ACTIVE INGREDIENTS:

Thiamethoxam	92.4 g/L
Thiabendazole	46.2 g/L
Metalaxyl-M and S-isomer	11.6 g/L
Sedaxane	15.4 g/L
Fludioxonil	

Contains 1,2-benzisothiazolin-3-one at 0.0097%, 5-chloro-2-methyl-4-isothiazolin-3-one at 0.00056% and 2-methyl-4-isothiazolin-3-one at 0.00019% as a preservatives

READ THE LABEL AND BOOKLET BEFORE USING KEEP OUT OF REACH OF CHILDREN AND PREVENT ACCESS BY UNAUTHORIZED PERSONNEL

Warning, contains the allergen, soy.

NET CONTENTS: 1 L to 1050 L

REGISTRATION NUMBER: 34527 PEST CONTROL PRODUCTS ACT

Syngenta Canada Inc.

140 Research Lane, Research Park

Guelph, Ontario N1G 4Z3 Telephone: 1-877-964-3682

To be applied on-farm or by commercial treaters (facilities and mobile treaters) using closed transfer, including closed mixing, loading, calibrating, and closed treatment equipment. Do not use open transfer of CRUISER MAXX® VIBRANCE® PULSES. All seed treated with this product must be conspicuously coloured at the time of treatment.

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, 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 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

KEEP OUT OF REACH OF CHILDREN AND ANIMALS. HARMFUL TO HUMANS AND DOMESTIC ANIMALS.

Avoid contact with skin. Avoid inhalation of vapours, spray mist or treated seed dust. Avoid contact with eyes.

Avoid contamination of feed and foodstuffs.

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.

CRUISER MAXX® VIBRANCE® PULSES is for use on-farm and in closed transfer commercial seed treatment facilities only on listed pulse crops. Closed transfer includes closed mixing, loading, calibrating and closed treatment equipment.

Treat seed in a well-ventilated area.

NOTE: In case of accident, take the product label to the emergency facility or physician.

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)

All workers must wear cotton coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, and a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested during mixing, loading, treating, clean-up, and maintenance of seed treatment equipment.

Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Wash splashes from skin IMMEDIATELY with plenty of water. Remove PPE immediately after handling this product. Wash the outside of gloves with soap and water before removing. As soon as possible, wash thoroughly and change into clean clothing. After spraying, wash hands and shower thoroughly with soap and water.

Heavily contaminated or drenched clothing and other absorbent materials contaminated with this product should be discarded. Do not reuse them.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Wear freshly laundered clothes daily.

Do not wear contaminated shoes.

Users should wash hands and exposed skin before eating, drinking, chewing gum, using tobacco, applying cosmetics or using the toilet.

While using product, do not eat, drink or use tobacco (including smoking).

6.0 ENVIRONMENTAL PRECAUTIONS

TOXIC to aquatic organisms. DO NOT apply this product directly to water, or to areas where surface water is present.

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 or other surfaces.

Thiamethoxam is toxic to bees. Bees can be exposed to product residues in flower, leaves, pollen and/or nectar resulting from seed treatment applications. When used according to label directions minimal exposure or risk is expected. 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.

When using a seed flow lubricant with this treated seed, only a dust reducing fluency agent is permitted. Carefully follow use directions for the seed flow lubricant.

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 honey bee colonies.

7.0 USE RESTRICTIONS

- 1. Treated seed must not be used for food, feed or oil processing.
- 2. For seed treated with CRUISER MAXX VIBRANCE PULSES, do not graze or feed livestock on treated areas for 65 days after planting.
- 3. Subsequent crops of dry beans (including chickpeas, lupins and lentils), dry peas or potatoes can be planted after 0 days to fields in which seed treated with CRUISER MAXX VIBRANCE PULSES was planted. Subsequent crops of canola, mustard (condiment and oilseed), cereals and soybeans can be planted after 30 days to fields in which seed treated with CRUISER MAXX VIBRANCE PULSES was planted. Do not plant any crop other than those mentioned above within 60 days to fields in which seed treated with CRUISER MAXX VIBRANCE PULSES was planted.

All bags containing treated seed for sale or use in Canada must be labelled or tagged as follows: "This seed has been treated with the insecticide, thiamethoxam and the fungicides, thiabendazole, metalaxyl-M (and S-isomer), fludioxonil and sedaxane. Wear cotton coveralls over a long-sleeved shirt, long pants, chemical resistant gloves and a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested when handling treated seeds, including loading into seed hoppers and planting treated seed. When using closed-cab planting equipment, chemicalresistant gloves and NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested are not required inside cab. Do not use for food, feed or oil processing. Store away from food and feed. This product is toxic to aquatic organisms, birds and small wild mammals. Treated seed is TOXIC to birds. Thiamethoxam 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 honey bee colonies. Spilled or exposed seeds and dust must be

incorporated into the soil or cleaned up from the soil surface."

8.0 STORAGE

Store this product away from food or feed.

Ideal storage temperature is above freezing and below 30 °C. Repeated freeze-thawing of CRUISER MAXX VIBRANCE PULSES 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

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 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.

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

GROUP	4A				INSECTICIDE
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SEED TREATMENT

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Pamphlet

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Heavily contaminated or drenched clothing and other absorbent materials contaminated with this product should be discarded. Do not reuse them.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

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8.0 STORAGE

Store this product away from food or feed.

Ideal storage temperature is above freezing and below 30 °C. Repeated freeze-thawing of CRUISER MAXX VIBRANCE PULSES 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

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 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.

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

10.0 PRODUCT INFORMATION

CRUISER MAXX VIBRANCE PULSES is a seed treatment product containing the insecticide, thiamethoxam, and the fungicides, thiabendazole, metalaxyl-M and S-isomer, sedaxane and fludioxonil. This product protects against damage from listed early-season insects as well as soil- and seed-borne diseases of pulse crops.

This formulation contains a colouring agent that will colour the treated seed.

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 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 result in crop damage and/or yield losses. Since the occurrence of the resistance cannot be foreseen, Syngenta Canada Inc. accepts no responsibility for any loss of, or damage to, crops resulting from the failure of CRUISER MAXX VIBRANCE PULSES 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.

Thiamethoxam is a Group 4 Insecticide. Do not make any subsequent application of a Group 4 Insecticide (i.e., in-furrow or foliar application) following treatment with CRUISER MAXX VIBRANCE PULSES.

FOR USE IN CLOSED APPLICATION SYSTEMS; NO OPEN TRANSFER OF PRODUCT IS PERMITTED.

11.1.1 Mixing Instructions (Slurry Application):

- 1. Ensure product is thoroughly mixed prior to application.
- 2. Apply CRUISER MAXX VIBRANCE PULSES utilizing closed system seed treatment equipment that provides uniform seed coverage. Uneven or incomplete seed coverage may not give the desired level of insect and (or) disease control.
- 3. Thoroughly mix the recommended amount of CRUISER MAXX VIBRANCE PULSES

- into the required amount of water or carrier for the slurry treater and dilution rate to be used.
- 4. Follow the manufacturer's application instructions for the seed treatment equipment being used.
- 5. Maintain constant agitation of the slurry during the seed treatment process. Allow the seed to dry before bagging or storing into bulk containers.

11.1.2 Seed Treatment and Inoculants:

CRUISER MAXX VIBRANCE PULSES is compatible with Rhizobium based inoculants. Please check with inoculant manufacturers for specific planting windows and methods of application 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. Depending on planting equipment, seed treated with CRUISER MAXX VIBRANCE PULSES, or a combination of CRUISER MAXX VIBRANCE PULSES and seed inoculants, may not flow through planting equipment at the same rate as untreated seed. Recalibrate equipment before planting treated seed. Mixing with inoculants may increase the drying time after treating, extending the processing time.

This product contains a pigment that will adequately colour the 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. Follow instructions on the colourant package for mixing. Regulations pertaining to colouration of treated seed enforced under the "Seed Act" must be strictly adhered to when using this product.

12.0 CROP USE DIRECTIONS

12.1 Legume Vegetables

LEGUME VEGETABLES		
CROPS	CHICKPEAS	
PEST	Diseases controlled:	
	*Seed-borne Ascochyta blight caused by <i>Ascochyta rabiei</i>	
	Seed rot/pre-emergence damping-off, and post-emergence damping-off and seedling blight caused by <i>Fusarium</i> spp., <i>Pythium</i> spp. and <i>Rhizoctonia</i> spp.	
	Seed rot and seedling blight caused by seed-borne Botrytis spp.	
	Insects controlled:	
	Wireworms	
RATE	325 mL/100 kg seed	
APPLICATION METHOD	Seed treatment	

NOTES	*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. CRUISER MAXX VIBRANCE PULSES will minimize the growth of fungus on the seed and prevent the movement of fungus in the field.
CROPS	LENTILS
PEST	Diseases controlled:
	*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.
	Insects controlled:
	Wireworms
RATE	325 mL/100 kg seed
APPLICATION METHOD	Seed treatment
NOTES	*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. CRUISER MAXX VIBRANCE PULSES will minimize the growth of fungus on the seed and prevent the movement of fungus in the field.
CROPS	DRY PEAS
	<u>Diseases controlled</u> :
	*Seed-borne Ascochyta blight and foot root caused by <i>Ascochyta pinodes</i>
PEST	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.
	Insects controlled:
	Wireworms, pea leaf weevil
RATE	325 mL/100 kg seed
APPLICATION METHOD	Seed treatment
NOTES	*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. CRUISER MAXX VIBRANCE PULSES will minimize the growth of fungus on the seed and prevent the movement of fungus in the field.
CROPS	
	LUPINS, DRY FAVA BEANS
	Diseases controlled:
PEST	<u>Diseases controlled:</u> Seed rot/pre-emergence damping-off, and post-emergence damping-off
PEST	<u>Diseases controlled:</u> 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.
PEST	<u>Diseases controlled</u> : 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. and <i>Rhizoctonia</i> spp.
PEST	<u>Diseases controlled:</u> 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. and <i>Rhizoctonia</i> spp. Anthracnose caused by seed-borne <i>Colletotrichum</i> spp.

13.0 RESISTANT MANAGEMANT RECOMMENDATIONS

For resistance management, please note that CRUISER MAXX VIBRANCE PULSES contains Group 1, 4, 7 and 12 fungicides and a Group 4A insecticide. Any fungal and (or) insect population may contain individuals naturally resistant to CRUISER MAXX VIBRANCE PULSES and other Group 1, 4, 7 and 12 fungicides and Group 4A insecticides. A gradual or total loss of pest control may occur over time if these fungicides/insecticides 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 insecticide and fungicide resistance:

Where possible, rotate the use of CRUISER MAXX VIBRANCE PULSES or other Group 1, 4, 7 or 12 fungicides and Group 4A insecticides with different groups that control the same pathogens/pests.

Use tank mixtures with fungicides/insecticides from a different group that is effective on the target pathogen when such use is permitted.

Fungicide and insecticide use should be based on an Integrated Pest Management (IPM) 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 and insecticide populations for resistance development. Notify Syngenta Canada Inc. if reduced sensitivity of the pathogen to CRUISER MAXX VIBRANCE PULSES 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 and insecticide product 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 or pest problems in your area.

For further information or to report suspected resistance, contact Syngenta Canada Inc. at 1-87-SYNGENTA (1-877-964-3682) or at www.syngenta.ca.

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