

GROUP	4				INSECTICIDE
GROUP	3	4	7	12	FUNGICIDES

CRUISER® VIBRANCE® QUATTRO

SEED TREATMENT FUNGICIDES AND INSECTICIDE

SUSPENSION

AGRICULTURAL

A seed treatment for the control of certain insect pests and seed- and soil-borne diseases of cereal crops.

GUARANTEE:

Thiamethoxam	61.5 g/L
Difenoconazole	36.9 g/L
Sedaxane	15.4 g/L
Metalaxyl-M (and S-isomer)	9.2 g/L
Fludioxonil.....	7.7 g/L

Contains 1,2-benzisothiazolin-3-one at 0.023%, 2-bromo-2-nitropropane-1,3-diol at 0.021%, 5-chloro-2-methyl-4-isothiazolin-3-one at 0.00008% and 2-methyl-4-isothiazolin-3-one at 0.000026% as preservatives.

Warning, contains the allergen soy.

**READ THE LABEL AND PAMPHLET BEFORE USING
KEEP OUT OF REACH OF CHILDREN**

REGISTRATION NUMBER: **31453**
PEST CONTROL PRODUCTS ACT

Syngenta Canada Inc.
140 Research Lane, Research Park
Guelph, Ontario
N1G 4Z3
Telephone: 1-877-964-3682

Special Use Restrictions:

All seed treated with this product must be conspicuously coloured at the time of treatment.

No open transfer is permitted for commercial seed treatment (facilities and mobile treaters) of barley, wheat, oats, rye and triticale.

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.

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. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. 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 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.

TOXICOLOGICAL INFORMATION

There is no specific antidote for this product if ingested. Treat symptomatically. Contains petroleum distillate – vomiting may cause aspiration pneumonia.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN AND DOMESTIC ANIMALS. Wash hands and face after handling and before eating, using tobacco (including smoking), applying cosmetics, or using the toilet. Wear a dust mask when transferring seed to a storage bin. Avoid contamination of feed and foodstuffs.

CRUISER® VIBRANCE® QUATTRO is for use on-farm on barley, wheat, oats, rye, and triticale. This product can also be applied by commercial seed treaters (facilities and mobile treaters) using closed system transfer. Closed transfer includes closed mixing, loading, calibrating and closed treatment equipment.

Treat seed in a well-ventilated area.

For commercial seed treatment:

Cleaners must wear chemical-resistant coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, work boots and socks. Treaters, baggers, sewers, stackers, forklift operators and others must wear cotton coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, work boots and socks. In addition, wear a NIOSH-approved dust mask when bagging or sewing bags of treated seed or when transferring seed to a storage bin.

For on-farm treating:

When treating seeds on-farm, all workers must wear coveralls over a long sleeved shirt, long pants, chemical-resistant gloves, work boots, socks and a NIOSH-approved dust mask. In addition, wear a NIOSH-approved dust mask when transferring seed to a storage bin.

For planting:

When planting (including loading, sowing, maintenance, and clean-up) wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, work boots, socks and NIOSH-approved dust mask. When using closed-cab planting equipment, chemical-resistant gloves and NIOSH-approved dust mask are not required inside cab. For good hygiene practice, it is also recommended to wear a suitable dust mask during all other job activities.

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.

ENVIRONMENTAL HAZARDS

TOXIC to aquatic organisms.

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 surface.

TOXIC to bees. Bees can be exposed to product residues in flowers, leaves, pollen and/or nectar resulting from seed treatment applications.

USE RESTRICTIONS

1. Treated seed must not be used for food, feed or oil processing.
2. To prevent contamination, store away from food and feed.
3. For seed treated with CRUISER VIBRANCE QUATTRO, do not graze or feed livestock on treated areas for 45 days after planting.
4. Do not plant any crop other than cereals, corn, soybeans, members of Crop Subgroup 6C (dried, shelled peas and beans), members of Crop Subgroup 20A (canola and rapeseed subgroup) or potatoes within 60 days to fields in which seeds treated with CRUISER VIBRANCE QUATTRO were planted.
5. 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, difenoconazole, metalaxyl-M (and S-isomer), sedaxane and fludioxonil. Wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, work boots, socks and NIOSH -approved dust mask when handling treated seed, and during planting (including loading, sowing, maintenance, and clean-up). When using closed-cab planting equipment, chemical-resistant gloves and NIOSH -approved dust mask are not required inside cab. Do not graze or feed livestock on seeded area for 45 days after planting. Do not use for food, feed or oil processing. Store away from food and feed. Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned-up from the soil surface.”

DECONTAMINATION AND 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.

CONTAINER 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 further use.

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 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)***

GENERAL INFORMATION

CRUISER VIBRANCE QUATTRO is a combination of the insecticide thiamethoxam and the fungicides difenoconazole, metalaxyl-M (and S-isomer), sedaxane and fludioxonil that controls or suppresses certain insect pests and seed- and soil-borne diseases of cereal crops, as listed below.

When seed is treated for post-planting protection against registered pests, CRUISER VIBRANCE QUATTRO will also provide protection during post-treatment storage of the seed against damage from many storage insect pests. Seed treated with thiamethoxam has been tested and found to be effective against rusty grain beetle, saw-toothed grain beetle, red flour beetle, rice weevil, lesser grain borer, European corn borer and Indian meal moth. It is recommended that seed with existing populations of storage pests be fumigated prior to treating and storage of that seed.

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 VIBRANCE QUATTRO.

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 seed.

Note: Experience has shown that strains of fungus resistant to metalaxyl-M (and S-isomer) 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 VIBRANCE QUATTRO to control the resistant fungus strains. If disease appears in a treated field, consult the government extension specialist immediately.

DIRECTIONS FOR USE

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

CRUISER VIBRANCE QUATTRO is a ready-to-use water-based formulation for use in commercial seed treatment facilities or on-farm. Treatment equipment must provide uniform coverage of CRUISER VIBRANCE QUATTRO on the seed. Thorough seed coverage will offer the best protection of the seed from insect damage and disease. Uneven seed coverage may not give the desired level of disease/insect protection.

This product does not require the addition of water for application. 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 is above freezing and below 30 °C. Repeated freeze-thawing of CRUISER VIBRANCE QUATTRO 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.

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 “Seeds Act” must be strictly adhered to when using this product.

USE RATES

For control or suppression of certain seed- and soil-borne diseases and insects on small-grained cereals, apply 325 mL CRUISER VIBRANCE QUATTRO per 100 kg of seed to the crops listed below.

CROP GROUP 15 (CEREALS)	
CROPS	Barley
INSECTS CONTROLLED	Wireworms European Chafer ¹
DISEASES CONTROLLED	Seed rots caused by <i>Fusarium</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Penicillium</i> and <i>Aspergillus</i> spp. Seedling blight, root rot, and damping-off caused by seed- and soil-borne <i>Fusarium</i> spp. or <i>Rhizoctonia</i> spp. Seedling blight, root rot, and damping-off caused by soil-borne <i>Pythium</i> spp. Covered smut (<i>Ustilago hordei</i>) False loose smut (<i>Ustilago nigra</i>) True loose smut (<i>Ustilago nuda</i>)
DISEASES SUPPRESSED²	Common root rot (<i>Cochliobolus sativus</i>) Fusarium crown and foot rot (<i>Fusarium</i> spp.) Take-all (<i>Gaeumannomyces graminis</i>)
RATE	325 mL/100 kg seed
NOTES	¹ For control of European chafer activity on wheat and barley, mix CRUISER VIBRANCE QUATTRO with CRUISER 5FS Seed Treatment to achieve a total use rate of 30 g of thiamethoxam per 100 kg seed. Consult each product label for registered use rates and follow all label use instructions. Read the label directions for each product and follow the most restrictive label precautions and limitations. ² Suppression means consistent control at a level that is not optimal but is still of commercial benefit.
CROPS	Oats
INSECTS CONTROLLED	Wireworms
DISEASES CONTROLLED	Seed rots caused by <i>Fusarium</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Penicillium</i> and <i>Aspergillus</i> spp. Seedling blight, root rot, and damping-off caused by seed- and soil-borne <i>Fusarium</i> spp. or <i>Rhizoctonia</i> spp. Seedling blight, root rot, and damping-off caused by soil-borne <i>Pythium</i> spp. Covered smut (<i>Ustilago hordei</i>) Loose smut (<i>Ustilago avenae</i>)
DISEASES SUPPRESSED¹	Common root rot (<i>Cochliobolus sativus</i>)
RATE	325 mL/100 kg seed
NOTES	¹ Suppression means consistent control at a level that is not optimal but is still of commercial benefit.

CROPS	Rye
INSECTS CONTROLLED	Wireworms
DISEASES CONTROLLED	Seed rots caused by <i>Fusarium</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Penicillium</i> and <i>Aspergillus</i> spp. Seedling blight, root rot, and damping-off caused by seed- and soil-borne <i>Fusarium</i> spp. or <i>Rhizoctonia</i> spp. Seedling blight, root rot, and damping-off caused by soil-borne <i>Pythium</i> spp. Common bunt (<i>Tilletia tritici</i>) ¹ Dwarf bunt (<i>Tilletia controversa</i>) ¹
DISEASES SUPPRESSED²	Common root rot (<i>Cochliobolus sativus</i>) Fusarium crown and foot rot (<i>Fusarium</i> spp.) Take-all (<i>Gaeumannomyces graminis</i>)
RATE	325 mL/100 kg seed
NOTES	¹ Controls both seed- and soil-borne bunts (common, dwarf). ² Suppression means consistent control at a level that is not optimal but is still of commercial benefit.
CROPS	Triticale
INSECTS CONTROLLED	Wireworms
DISEASES CONTROLLED	Seed rots caused by <i>Fusarium</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Penicillium</i> and <i>Aspergillus</i> spp. Seedling blight, root rot, and damping-off caused by seed- and soil-borne <i>Fusarium</i> spp. or <i>Rhizoctonia</i> spp. Seedling blight, root rot, and damping-off caused by soil-borne <i>Pythium</i> spp. Loose smut (<i>Ustilago tritici</i>)
DISEASES SUPPRESSED¹	Common root rot (<i>Cochliobolus sativus</i>) Fusarium crown and foot rot (<i>Fusarium</i> spp.) Take-all (<i>Gaeumannomyces graminis</i>)
RATE	325 mL/100 kg seed
NOTES	¹ Suppression means consistent control at a level that is not optimal but is still of commercial benefit.

CROPS	Winter Wheat
INSECTS CONTROLLED	Wireworms European Chafer ¹
DISEASES CONTROLLED	Seed rots caused by <i>Fusarium</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Penicillium</i> and <i>Aspergillus</i> spp. Seedling blight, root rot, and damping-off caused by seed- and soil-borne <i>Fusarium</i> spp. or <i>Rhizoctonia</i> spp. Seedling blight, root rot, and damping-off caused by soil-borne <i>Pythium</i> spp. Common bunt (<i>Tilletia tritici</i>) ² Dwarf bunt (<i>Tilletia controversa</i>) ² Loose smut (<i>Ustilago tritici</i>)
DISEASES SUPPRESSED³	Common root rot (<i>Cochliobolus sativus</i>) Fusarium crown and foot rot (<i>Fusarium</i> spp.) Take-all (<i>Gaeumannomyces graminis</i>)
RATE	325 mL/100 kg seed
NOTES	¹ For control of European chafer activity on wheat and barley, mix CRUISER VIBRANCE QUATTRO with CRUISER 5FS Seed Treatment to achieve a total use rate of 30 g of thiamethoxam per 100 kg seed. Consult each product label for registered use rates and follow all label use instructions. Read the label directions for each product and follow the most restrictive label precautions and limitations. ² Controls both seed- and soil-borne bunts (common, dwarf). ³ Suppression means consistent control at a level that is not optimal but is still of commercial benefit.
CROPS	Spring Wheat
INSECTS CONTROLLED	Wireworms European Chafer ¹
DISEASES CONTROLLED	Seed rots caused by <i>Fusarium</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Penicillium</i> and <i>Aspergillus</i> spp. Seedling blight, root rot, and damping-off caused by seed- and soil-borne <i>Fusarium</i> spp. or <i>Rhizoctonia</i> spp. Seedling blight, root rot, and damping-off caused by soil-borne <i>Pythium</i> spp. Common bunt (<i>Tilletia tritici</i>) ² Loose smut (<i>Ustilago tritici</i>)
DISEASES SUPPRESSED³	Common root rot (<i>Cochliobolus sativus</i>) Fusarium crown and foot rot (<i>Fusarium</i> spp.) Take-all (<i>Gaeumannomyces graminis</i>)
RATE	325 mL/100 kg seed
NOTES	¹ For control of European chafer activity on wheat and barley, mix CRUISER VIBRANCE QUATTRO with CRUISER 5FS Seed Treatment to achieve a total use rate of 30 g of thiamethoxam per 100 kg seed. Consult each product label for registered use rates and follow all label use instructions. Read the label directions for each product and follow the most restrictive label precautions and limitations. ² Controls both seed- and soil-borne bunts (common, dwarf). ³ Suppression means consistent control at a level that is not optimal but is still of commercial benefit.

TANK MIXES

When wireworm activity is high, CRUISER VIBRANCE QUATTRO can be tank mixed with CRUISER 5FS Seed Treatment to achieve a total use rate of 30 g of thiamethoxam per 100 kg seed. Consult each product label for registered use rates and follow all label use instructions. Read the label directions for each product and follow the most restrictive label precautions and limitations.

Resistance Management Recommendations

For resistance management, please note that CRUISER VIBRANCE QUATTRO contains Groups 3, 4, 7 and 12 and a Group 4 insecticide. Any fungal and (or) insect population may contain individuals naturally resistant to CRUISER VIBRANCE QUATTRO and other Groups 3, 4, 7 or 12 fungicides and Group 4 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 VIBRANCE QUATTRO or other Groups 3, 4, 7 and 12 fungicides, Group 4 insecticides with different groups that control the same pathogens/insect pests.

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 cultural, biological and other chemical control practices.

Monitor treated fungal and insecticide populations for sign of 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 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 disease problems in your area.

For further information and 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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