



GROUP	28	INSECTICIDE
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REATIS 480 FS

INSECTICIDE

SUSPENSION

REATIS 480 FS is a systemic seed treatment insecticide for protection against certain insect pests of corn and soybeans. For use 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 REATIS 480 FS is permitted.

COMMERCIAL

ACTIVE INGREDIENT: Tetraniliprole 480 g/L

Contains 1,2 benzisothiazolin-3-one at 0.035% and 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0009% and 2-methyl-4-isothiazolin-3-one at 0.0003% as preservatives.

REGISTRATION NO. 33712 PEST CONTROL PRODUCTS ACT

READ THE LABEL BEFORE USING

PROTECT FROM FREEZING

NET CONTENTS: 0.25 - 1000 L

BAYER CROPSCIENCE INC.
200-160 Quarry Park Blvd., SE
Calgary, Alberta T2C 3G3

24 HOUR EMERGENCY PHONE: 1-800-334-7577

GROWER INFORMATION: 1-888-283-6847

SPECIAL USE RESTRICTIONS: This product contains no colourant. Seed treated with REATIS 480 FS must be conspicuously coloured. Regulations pertaining to the *Seeds Act* must be strictly adhered to when using this product.

REATIS 480 FS is a seed treatment insecticide that provides protection of certain crops from damage caused by listed chewing insect pests through contact and systemic activity. Thorough seed coverage is required for maximum protection of seed. When rate ranges are given, use the higher rate when insect pressure is expected to be high.

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.

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN.

When handling REATIS 480 FS or seed treated with REATIS 480 FS, work in a well-ventilated area. Treaters/applicators, baggers/sewers/stackers and forklift drivers must wear a long-sleeved shirt, long pants, chemical resistant gloves, shoes and socks. Cleanout/repair personnel must wear coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, shoes and socks.

Use good personal hygiene, washing hands and exposed skin before eating, drinking or smoking. No food, drink or tobacco should be allowed in areas of chemical storage or use.

If this pest control product is to be used on a commodity that may be exported and you require information regarding Maximum Residue Limits for an importing country, please contact Bayer CropScience Canada Inc. at 1-888-283-6847 or www.bayercropscience.ca.

FIRST AID:

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 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.

	<p>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.</p>
If in eyes	<p>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.</p>

TOXICOLOGICAL INFORMATION:

Treat symptomatically.

ENVIRONMENTAL PRECAUTIONS:

Toxic to aquatic organisms.

Tetraniliprole 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.

Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned-up from the soil surface. Left over treated seed should be double-sown around the headland, or buried away from water sources.

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

STORAGE:

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

DISPOSAL:

Disposal of Container

For non-returnable containers:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the mixture in the tank.
2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. For information on disposal of unused, unwanted product, contact the manufacturer and 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 reuse this container for any other purpose.

Triple rinse instructions for container disposal (for recyclable and disposable containers only): This container should be triple-rinsed prior to its disposal. The rinsate can be added to the seed treatment provided the total volume of water does not exceed 6 % of the container size. Add 1/3 of the rinse water to the container and swish the contents thoroughly. Empty the rinsate into the seed treater holding tank and repeat this process two more times making sure the total volume of rinsate does not exceed 6%. Make sure rinsate is thoroughly mixed with seed treatment before treating. Close the container.

CAUTION: Do not dilute beyond 6% or excess seed wetness may result in seed handling difficulties. Using excess water can also cause REATIS 480 FS to thin resulting in settling of solids in the product. Be sure to adjust the undiluted application rate up by 6% to compensate for the dilution of the product caused by the addition of rinsate.

Disposal of unused, unwanted product:

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.



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GENERAL INFORMATION

SECTION 1: 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.

SECTION 2: THE PRODUCT

REATIS 480 FS is a seed treatment insecticide that provides protection of certain crops from damage caused by listed chewing insect pests through contact and systemic activity. Thorough seed coverage is required for maximum protection of seed. When rate ranges are given, use the higher rate when insect pressure is expected to be high.

SAFETY AND HANDLING

SECTION 3: PRECAUTIONS, PROTECTIVE CLOTHING AND EQUIPMENT

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

When handling REATIS 480 FS or seed treated with REATIS 480 FS, work in a well-ventilated area. Treater/applicators, baggers/sewers/stackers and forklift drivers must wear a long-sleeved shirt, long pants, chemical resistant gloves, shoes and socks. Cleanout/repair personnel must wear coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, shoes and socks. Use good personal hygiene, washing hands and exposed skin before eating, drinking or smoking. No food, drink or tobacco should be allowed in areas of chemical storage or use.

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SECTION 4: FIRST AID AND TOXICOLOGICAL INFORMATION

FIRST AID:

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 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.

TOXICOLOGICAL INFORMATION:

Treat symptomatically.

SECTION 5: ENVIRONMENTAL PRECAUTIONS

Toxic to aquatic organisms.

Tetraniliprole 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.

Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned-up from the soil surface. Left over treated seed should be double-sown around the headland, or buried away from water sources.

This product demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of tetraniliprole in areas where soils are permeable,

particularly where the water table is shallow, may result in ground water contamination.

SECTION 6: STORAGE

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

SECTION 7: DISPOSAL

Disposal of Container

For non-returnable containers:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the mixture in the tank.
2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. For information on disposal of unused, unwanted product, contact the manufacturer and 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:

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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 reuse this container for any other purpose.

Triple rinse instructions for container disposal (for recyclable and disposable containers only): This container should be triple-rinsed prior to its disposal. The rinsate can be added to the seed treatment provided the total volume of water does not exceed 6 % of the container size. Add 1/3 of the rinse water to the container and swish the contents

thoroughly. Empty the rinsate into the seed treater holding tank and repeat this process two more times making sure the total volume of rinsate does not exceed 6%. Make sure rinsate is thoroughly mixed with seed treatment before treating. Close the container.

CAUTION: Do not dilute beyond 6% or excess seed wetness may result in seed handling difficulties. Using excess water can also cause REATIS 480 FS to thin resulting in settling of solids in the product. Be sure to adjust the undiluted application rate up by 6% to compensate for the dilution of the product caused by the addition of rinsate.

Disposal of unused, unwanted product:

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.

DIRECTIONS FOR USE

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

SECTION 8: CROPS, PESTS, APPLICATION RATES AND METHODS

8.1 APPLICATION:

For use in commercial seed treatment equipment only. Not for use in hopper box, planter box, slurry box, or other on-farm seed treatment applications.

Ensure product is thoroughly mixed prior to application or use entire container at one time. Maintain constant agitation of the slurry during application.

Apply REATIS 480 FS through slurry applicator seed treaters which provide uniform seed coverage. Uneven or incomplete seed coverage may not give the desired level of insect control. Allow the seed to dry before bagging or storing in bulk containers. Seed treated with REATIS 480 FS may reduce seed flow in the seed drill. Recalibration of the seed drill may be required to obtain correct seeding rate before planting.

Pre-test the germination of a small sample of each seed lot with REATIS 480 FS prior to commercial application to the whole lot.

8.2 CROPS AND PESTS:

Corn (field, sweet, and pop, including seed production):

Pest	Rate REATIS 480 FS		Remarks
	mg active ingredient per kernel	mL per 80,000 kernels	
Seedcorn maggot, Wireworm, Larvae of European chafer, June beetle, Japanese beetle	0.25	42	This product contains no colourant. An appropriate colourant must be added when this product is applied. Do not make a subsequent foliar application of any Group 28 insecticide for a minimum of 60 days after planting seed treated with REATIS 480 FS. If a foliar spray is required during this window it must be made with an insecticide other than Group 28.

Soybean:

Pest	Rate REATIS 480 FS		Remarks
	mg active ingredient per seed	mL per 140,000 seeds	
Seedcorn maggot, Wireworm, Larvae of European chafer, June beetle, Japanese beetle	0.045 to 0.0675	13 to 20	This product contains no colourant. An appropriate colourant must be added when this product is applied. Use the high rate when seedcorn maggot pressure is expected to be high such as planting, early, in loose soils, in high organic matter soils, or after an application of manure. Do not make a subsequent foliar application of any Group 28 insecticide for a minimum of 60 days after planting seed treated with REATIS 480 FS. If a foliar spray is required during this window it must be made with an insecticide other than Group 28.

8.3 TANK MIXTURES:

The following products may be mixed with REATIS 480 FS either in the seed treatment slurry or sequentially applied to seed. When applied as a tank-mix combination, read and observe all label directions, including rates, personal protective equipment, restrictions and precautions for each product used in the tank-mix. Always use in accordance with the most restrictive label restrictions and precautions.

Crop	Tank Mix Partner
Corn	Vortex, Allegiance FL, Trilex FS

Soybean	Evergol Energy, ILeVO, Votivo, Allegiance FL, BYI02960 480 FS
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SECTION 9: MIXING INSTRUCTIONS

When applied with seed treatment application equipment designed to treat seed utilizing a treatment slurry mixture, add approximately $\frac{1}{2}$ to $\frac{2}{3}$ of the required water to the treatment slurry tank followed by the accompanying seed treatment products and REATIS FS. The order of product addition is dependent on the accompanying seed treatment products and application equipment used. Allow each slurry component to disperse completely prior to the next addition until a uniform suspension is obtained. After all slurry components have been added and dispersed completely add the remaining $\frac{1}{2}$ to $\frac{1}{3}$ of required water for proper slurry volume and mix until uniform. Do not store mixed slurries for greater than 72 hours. Maintain adequate agitation until treatment slurry is applied. For additional instructions for use, slurry component mixing order, and other application suggestions contact your Bayer CropScience representative.

Prior to and during application, REATIS 480 FS must be thoroughly agitated to ensure uniform mixing of the product. Due to the viscosity of the material, it should be kept above 10 °C prior to and during application. Do not apply direct heat to container.

SECTION 10: USE RESTRICTIONS AND LIMITATIONS

10.1 USE RESTRICTIONS:

- Treated seed must not be used for food, feed or oil processing.

10.2 SEED QUALITY:

Treatment of highly mechanically damaged seed, or seed of known low vigour and poor quality may result in reduced germination and/or reduction of seed and seedling vigour. If seed lot quality is unknown, conduct a germination test on a small portion of seed before committing the total seed lot to a selected chemical treatment. Due to seed quality conditions beyond the control of Bayer CropScience Inc., no claims are made to guarantee germination of carry-over seed.

10.3 LABELLING TREATED SEED:

All bags containing treated seed must be labelled or tagged as follows:

- This seed has been treated with REATIS 480 FS seed protectant which contains tetraniliprole. Do not use for feed, food or oil processing. Store away from feeds and other foodstuffs. Wear a long-sleeved shirt, long pants, chemical-resistant gloves, shoes and socks during planting and handling of treated seeds.

- Tetraniliprole 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. Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned-up from the soil surface.
- Left over treated seed should be double-sown around the headland, or buried away from water sources.
- Do not make a subsequent foliar application of any Group 28 insecticide for a minimum of 60 days after planting seed treated with REATIS 480 FS. If a foliar spray is required during this window it must be made with an insecticide other than Group 28.

10.4 SPECIAL USE RESTRICTIONS:

This product contains no colourant. Seed treated with this product must be conspicuously coloured. Regulations pertaining to the *Seeds Act* must be strictly adhered to when using this product.

SECTION 11: ROTATIONAL CROPS

Rotational Crops	Planting Time from Last Application
All crops listed on this label	Immediately
Crop Subgroup 1A: Root Vegetable Crop Group 2: Leaves of Root and Tuber Vegetables Crop Subgroup 3-07: Bulb Vegetables Crop Group 6: Legume Vegetables (except soybeans) Crop Group 7: Foliage of Legume Vegetables (except soybeans) Crop Group 9: Cucurbit Vegetables, Crop Group 15: Cereal grains (except corn) Crop Group 16: Forage, fodder, and straw of cereal grains (except corn) Crop Subgroup 20A: Rapeseeds (Revised) Crop Subgroup 20B: Sunflowers (Revised) Alfalfa	30 days
All other crops	120 days

SECTION 12: RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, please note that REATIS 480 FS contains a Group 28 insecticide. Any insect population may contain individuals naturally resistant to REATIS 480 FS and other Group 28 insecticides. The resistant individuals may dominate the insect population if this group of insecticides is 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 resistance:

- Where possible, rotate the use of REATIS 480 FS or other Group 28 insecticides with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group when such use is permitted.
- Insecticide 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 Bayer CropScience Inc. at 1-888-283-6847 or at www.bayercropscience.ca.