

2023-1491
2024-07-08



Container Label

GROUP	4D	INSECTICIDE
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BUTEO start 480 FS

SUSPENSION

BUTEO start 480 FS is a systemic seed treatment insecticide for early season protection of soybeans, canola, and mustard (oilseed and condiment) against certain insect pests.

COMMERCIAL

ACTIVE INGREDIENT: Flupyradifurone 480 g/L

Contains 1,2 benzisothiazolin-3-one at 0.029% and 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0009% and 2-methyl-4-isothiazoline-3-one at 0.0003% as preservatives.

REGISTRATION NO. 31451 PEST CONTROL PRODUCTS ACT

READ THE LABEL AND BOOKLET BEFORE USING



CAUTION POISON

PROTECT FROM FREEZING

NET CONTENTS: 1 - 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 BUTEO start 480 FS must be conspicuously coloured. Regulations pertaining to the *Seeds Act* must be strictly adhered to when using this product.

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 BUTEO start 480 FS is permitted.

PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN. Harmful if swallowed. When handling BUTEO start 480 FS or seed treated with BUTEO start 480 FS, work in a well-ventilated area. Wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes or boots during mixing, loading, treating, bagging, sewing, and stacking of treated seed and during cleaning and repair. In addition, cleanout/repair personnel for seed treatment of canola and mustard must wear a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested. 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. Apply only in a way that this product will not contact workers or other persons, either directly or through drift. Only workers wearing personal protective equipment may be in the area where treating, bagging, sewing and/or stacking is occurring.

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.cropscience.bayer.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. 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. 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.

ENVIRONMENTAL PRECAUTIONS:

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. 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 from treated seed” on the Health Canada website (www.healthcanada.gc.ca/pollinators).

STORAGE:

Store this product away from food or feed.

Store product in original container only, away from fertilizers. Keep container closed.

Store in a cool, dry area. Do not store in direct sunlight. Do not store above 35°C. Do not allow to freeze.

DISPOSAL:

Disposal of Container:

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. If the slurry volume can accommodate the water volume, 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/territorial 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.

Disposal of unused, unwanted product:

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial/territorial regulatory agency. Contact the manufacturer and the provincial/territorial regulatory agency in case of a spill, and for clean-up of spills.

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.



Booklet Label

GROUP 4D INSECTICIDE

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COMMERCIAL

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Contains 1,2-benzisothiazolin-3-one at 0.029% and 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0009% and 2-methyl-4-isothiazoline-3-one at 0.0003% as preservatives.

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

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 BUTEO start 480 FS is permitted.

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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

BUTEO start 480 FS is a systemic seed treatment insecticide that provides protection of certain crops from damage caused by listed chewing and sucking insects through contact and systemic activity.

SAFETY AND HANDLING

Section 3: Precautions, Protective Clothing and Equipment

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

Harmful if swallowed.

When handling BUTEO start 480 FS or seed treated with BUTEO start 480 FS, work in a well-ventilated area. Wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes or boots during mixing, loading, treating, bagging, sewing, and stacking of treated seed and during cleaning and repair. In addition, cleanout/repair personnel for seed treatment of canola and mustard must wear a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested. 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. Apply only in a way that this product will not contact workers or other persons, either directly or through drift. Only workers wearing personal protective equipment may be in the area where treating, bagging, sewing and/or stacking is occurring.

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.cropscience.bayer.ca.

Section 4: First Aid and Toxicological Information
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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 birds and small wild mammals. Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned-up from the soil surface.

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 from treated seed” on the Health Canada website (www.healthcanada.gc.ca/pollinators).

Section 6: Storage

Store this product away from food or feed.

Store product in original container only, away from fertilizers. Keep container closed. Store in a cool, dry area. Do not store in direct sunlight. Do not store above 35°C. Do not allow to freeze.

Section 7: Disposal

Disposal of Container

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. If the slurry can accommodate the water volume, 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/territorial 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 containers that can be refilled for the user by the distributor/dealer:

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.

Disposal of unused, unwanted product:

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial/territorial regulatory agency. Contact the manufacturer and the provincial/territorial 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 and Pests

For use in commercial seed treatment (facilities and mobile treaters) with closed transfer including closed mixing, loading, calibrating, and closed treatment equipment. Not for use in hopper box, planter box, slurry box, or other on-farm seed treatment applications. Read the entire label and observe all label directions and precautions before use.

Ensure product is thoroughly mixed prior to application or use entire container at one time. Maintain constant agitation of the slurry during application. Thorough seed coverage is required for maximum protection of seed. Apply BUTEO start 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.

When rate ranges are given, use the higher rate when insect pressure is expected to be high. Under high insect pressures, a foliar insecticide may be required, therefore monitor crops regularly for insect infestation levels.

Allow the seed to dry before bagging or storing in bulk containers. Seed treated with BUTEO start 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.

BUTEO start 480 FS can be used as an over-treatment.

8.1 Soybeans

Pest	Rate of BUTEO start 480 FS		Remarks
	mL product per 140,000 seeds	mg a.i. per seed	
Soybean aphid, Bean leaf beetle	13.3 to 20	0.045 to 0.068	DO NOT apply any subsequent application of a Group 4D Insecticide (for example, in-furrow, soil or foliar application) following planting of BUTEO start 480 FS treated seeds.

8.2 Canola, Mustard (oilseed and condiment)

Pest	Rate (mL of BUTEO start 480 FS per 100 kg seed)	Remarks
Flea beetles	625-1042	DO NOT apply any subsequent application of a Group 4D Insecticide (for example, in-furrow, soil or foliar application) following planting of BUTEO start 480 FS treated seeds.

8.3 Tank Mixtures

For treatment of soybean seed, the following products may be tank mixed with BUTEO start 480 FS either in the seed treatment slurry or sequentially applied to seed: EverGol Energy, EverGol Xtend, Allegiance FL.

This product may be tank mixed with a fertilizer, a supplement, or with registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact Bayer CropScience Inc. at 1-888-283-6847 or www.cropscience.bayer.ca for information before applying any tank mix that is not specifically recommended on this label.

Bayer CropScience Inc. has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) of all potential tank mixes under all environmental conditions or for all crop varieties. Conduct a germination test on a small portion of seed before committing the total seed lot to tank mixes that are not specifically listed on this label.

When tank mixing, use closed transfer systems only. No open transfer.

SECTION 9: USE RESTRICTIONS AND LIMITATIONS

9.1 USE RESTRICTIONS:

- Regardless of type of application (seed treatment or foliar), do not apply more than 400 g of active ingredient flupyradifurone per hectare per season.
- Do not graze or feed soybean forage and hay to livestock.

9.2 SEED QUALITY AND STORAGE OF TREATED SEED:

Due to seed quality conditions beyond the control of Bayer CropScience Inc., no claims are made to guarantee germination of carry-over seed. Treatment of mechanically scarred or damaged seed, or of seed known to be of low germ, low vigour and poor quality is not recommended.

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.

9.3 LABELLING TREATED SEED:

All containers or packages containing treated seed for sale or use in Canada must be labelled or tagged as follows:

- This seed has been treated with BUTEO start 480 FS seed protectant which contains flupyradifurone.
- Do not use for feed, food or oil processing. Store away from feeds and other foodstuffs.
- Wear long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes when handling and planting treated seeds, and during clean-up, maintenance, and repair. Chemical-resistant gloves are not required when inside closed-cab planting equipment.
- Use only with closed cab planting equipment.
- 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.
- 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 from treated seed” on the Health Canada website (www.healthcanada.gc.ca/pollinators).
- Left over treated seed should be double-sown around the headland, or buried away from water sources.

9.4 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 10: MIXING INSTRUCTIONS

When applied with seed treatment application equipment designed to treat seed utilizing a treatment slurry mixture, if needed, 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 BUTEO start 480 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 any remaining 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, BUTEO start 480 FS must be thoroughly agitated to ensure uniform mixing of the product. Keep above 10 °C prior to and during application. Do not apply direct heat to container.

Section 11: Rotational Crops

Treated areas may be replanted with any crop specified on this label, or any crop for which a Maximum Residue Limit (MRL) for the active ingredient has been established, as soon as practical following the last application.

Immediate plant-back applies to the following crops:

Cereal grains (except rice), alfalfa, peanut, root vegetables (except sugarbeets), tuberous and corm vegetables, bulb vegetables, leafy vegetables, leaf petiole vegetables, brassica head and stem vegetables, legume vegetables (succulent or dried), fruiting vegetables, cucurbit vegetables, hop, pome fruit, berry and small fruit – bushberry (except highbush cranberry), berry and small fruit – vine including grapes, berry and small fruit – low growing berries including strawberries, tree nuts, stone fruit, caneberry, soybean, rapeseeds (Crop Subgroup 20A), mustard seeds (condiment type).

A 6-month plant-back interval applies to sugar beet.

Green manure and other cover crops not intended for human or animal consumption are acceptable rotational crops which do not require a plant-back interval following treatment. Do not graze or harvest such cover crops for food or feed.

For all other crops, a 12-month plant-back interval should be observed.

SECTION 12: RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, please note that BUTEO start 480 FS contains a Group 4D insecticide. Any insect population may contain individuals naturally resistant to BUTEO start 480 FS and other Group 4D 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 BUTEO start 480 FS or other Group 4D insecticides with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that is effective on the target pest 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. via internet at www.cropscience.bayer.ca or phone 1-888-283-6847.