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CONTAINER LABEL



GROUP 4 7 11 FUNGICIDES

PENTRIME

Seed Treatment Fungicide

A Fungicide Seed Treatment for seed and seedling protection against certain seed and soil-borne diseases on labelled crops

All seed treated with this product must be conspicuously coloured at the time of treatment. No open transfer is permitted in commercial seed treatment facilities.

SUSPENSION

AGRICULTURAL

GUARANTEE:	Penflufen	15.1 g/L
	Trifloxystrobin	10.0 g/L
	Metalaxyl	10.0 g/L

Contains 1,2 benzisothiazolin-3-one at 0.03% 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. 32299 PEST CONTROL PRODUCTS ACT

READ THE LABEL AND BOOKLET BEFORE USING
KEEP OUT OF REACH OF CHILDREN

PROTECT FROM FREEZING

NET CONTENTS 1L - 1000L, 15000L (bulk tanker)

Bayer CropScience
Suite 200, 160 Quarry Blvd. SE.
Calgary, AB T2C 3G3

For product information, call: 1-888-283-6847
In case of spills, poisoning, fire or other emergencies,
call: 1-800-334-7577 (24 hours a day)

PENTRIME is a liquid fungicide seed treatment containing penflufen, trifloxystrobin and metalaxyl for use on canola, mustard (oilseed and condiment types) and rapeseed. PENTRIME provides early-season control of seed-borne blackleg and seed-borne *Alternaria* spp. and provides protection from seed, seedling and soil-borne diseases caused by *Rhizoctonia solani*, *Fusarium* spp. and *Pythium* spp. on labelled crops.

DIRECTIONS FOR USE:

Refer to the attached booklet for specific use directions for each crop and detailed instructions on rates, diseases controlled, application timing and technique.

PRECAUTIONS:

- KEEP OUT OF REACH OF CHILDREN.
- Commercial seed treatment facilities must use closed transfer equipment only including closed mixing, loading, calibrating, and treatment equipment. No open transfer of PENTRIME is permitted in commercial seed treatment facilities.
- Work in a well-ventilated area when handling PENTRIME or PENTRIME-treated seed.
- Workers mixing, loading, treating, cleaning-up, or maintaining and repairing seed treatment equipment, bagging, sewing, stacking, involved in handling treated seed, or when transferring seed to a storage bin, must wear coveralls over long-sleeved shirt, long pants, chemical-resistant gloves, head gear, shoes and socks, and respiratory protection (*i.e.*, NIOSH -approved dust-filtering respirator or fresh air hood). DO NOT use leather or cloth gloves. Avoid breathing vapours.
- 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 when seed is being treated or bagged.
- Use good personal hygiene, washing hands and exposed skin with warm water and soap 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 to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's website at: www.croplife.ca.

FIRST AID:

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 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.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION: Treat patient symptomatically. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia.

ENVIRONMENTAL HAZARDS:

Toxic to aquatic organisms. **DO NOT** discharge effluent containing this product into sewer systems, lakes, streams, ponds, estuaries, oceans or other waters.

Dispose of all excess treated seed. Left over treated seed may be double-sown around the headland or buried away from water sources in accordance with local requirements. **DO NOT** leave exposed treated seed on soil surface. Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned-up from the soil surface.

The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g. sandy soil) and/or the depth to the water is shallow.

STORAGE: To prevent contamination store this product away from food or feed. Store in cool, dry area. Do not store in direct sunlight. Do not allow prolonged storage in temperatures that exceed 40°C or go below -10°C.

DISPOSAL:

DO NOT reuse this container for any purpose. Before disposing of the container it should be triple rinsed. See section “TRIPLE RINSING INSTRUCTIONS FOR CONTAINER DISPOSAL.” When triple rinsing, use closed transfer systems only. No open transfer.

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 NON-RETURNABLE CONTAINERS:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instruction 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.

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 RINSING 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 volume. Use 2% of the container size 3 times to triple rinse. Add the appropriate volume of 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% of the container size. Make sure rinsate is thoroughly mixed with seed treatment before treating. Replace the lids on the empty containers and deliver to an approved pesticide container collection site. If no site is available make the empty container unsuitable for further use. (See Disposal Section)

CAUTION: DO NOT dilute beyond 6% or excess seed wetness may result in seed handling difficulties. Using excess water can also cause PENTRIME to thin resulting in settling of solids in the product. Be sure to re-calibrate seed treatment equipment by adjusting the application volume up by 6% to compensate for the dilution of the product caused by the addition of rinsate.

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.



PENTRIME

Seed Treatment Fungicide

GROUP	4	7	11	FUNGICIDES
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A Fungicide Seed Treatment for seed and seedling protection against certain seed and soil-borne diseases on labelled crops

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AGRICULTURAL

GUARANTEE:	Penflufen	15.1 g/L
	Trifloxystrobin	10.0 g/L
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GENERAL INFORMATION

Section 1: The Product

PENTRIME is a liquid fungicide seed treatment containing penflufen, trifloxystrobin and metalaxyl for use on canola, mustard (oilseed and condiment types) and rapeseed. PENTRIME provides early-season control of seed-borne blackleg and seed-borne *Alternaria* spp. and provides protection from seed, seedling and soil-borne diseases caused by *Rhizoctonia solani*, *Fusarium* spp. and *Pythium* spp. on labelled crops.

SAFETY AND HANDLING

Section 2: Precautions, Protective Clothing and Equipment

PRECAUTIONS:

- KEEP OUT OF REACH OF CHILDREN.
- Commercial seed treatment facilities must use closed transfer equipment only including closed mixing, loading, calibrating, and treatment equipment. No open transfer of PENTRIME is permitted in commercial seed treatment facilities.
- Work in a well-ventilated area when handling PENTRIME or PENTRIME-treated seed.
- Workers mixing, loading, treating, cleaning-up, or maintaining and repairing seed treatment equipment, bagging, sewing, stacking, involved in handling treated seed, or when transferring seed to a storage bin, must wear coveralls over long-sleeved shirt, long pants, chemical-resistant gloves, head gear, shoes and socks, and respiratory protection (*i.e.*, NIOSH -approved dust-filtering respirator or fresh air hood). DO NOT use leather or cloth gloves. Avoid breathing vapours.
- 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 when seed is being treated or bagged.
- Use good personal hygiene, washing hands and exposed skin with warm water and soap 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 to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's website at: www.croplife.ca.

Section 3: First Aid and Toxicological Information

FIRST AID:

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 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.

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Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION: Treat patient symptomatically. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia.

Section 4: Environmental Hazards

ENVIRONMENTAL HAZARDS:

Toxic to aquatic organisms. DO NOT discharge effluent containing this product into sewer systems, lakes, streams, ponds, estuaries, oceans or other waters.

Dispose of all excess treated seed. Left over treated seed may be double-sown around the headland or buried away from water sources in accordance with local requirements. DO NOT leave exposed treated seed on soil surface. Any spilled or exposed seeds must be incorporated into the soil or otherwise cleaned-up from the soil surface.

The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g. sandy soil) and/or the depth to the water is shallow.

Section 5: Storage

STORAGE: To prevent contamination store this product away from food or feed. Store in cool, dry area. Do not store in direct sunlight. Do not allow prolonged storage in temperatures that exceed 40°C or go below -10°C.

Section 6: Disposal

DISPOSAL: DO NOT reuse this container for any purpose. Before disposing of the container it should be triple rinsed. See section “TRIPLE RINSING INSTRUCTIONS FOR CONTAINER DISPOSAL.” When triple rinsing, use closed transfer systems only. No open transfer.

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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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.

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Replace the lids on the empty containers and deliver to an approved pesticide container collection site. If no site is available make the empty container unsuitable for further use. (See Disposal Section)

CAUTION: DO NOT dilute beyond 6% or excess seed wetness may result in seed handling difficulties. Using excess water can also cause PENTRIME to thin resulting in settling of solids in the product. Be sure to re-calibrate seed treatment equipment by adjusting the application volume up by 6% to compensate for the dilution of the product caused by the addition of rinsate.

Section 7: Notices

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.

DIRECTIONS FOR USE

PENTRIME is a seed treatment formulation for use in commercial seed treatment operations with conventional seed treating equipment which can accurately meter, mix and apply flowable seed treatment formulations. Uniform application to seed is necessary to ensure optimum performance. Allow seeds to dry before bagging, storing or seeding.

Section 8: Pests Controlled

PENTRIME contains the fungicides penflufen, trifloxystrobin and metalaxyl and provides seed and seedling protection against a wide range of diseases caused by *Rhizoctonia solani*, *Fusarium* spp., *Pythium* spp., *Alternaria* spp. and *Leptosphaeria maculans* on labelled crops.

Section 9: Recommended Uses

CROP	PESTS	APPLICATION RATE	DIRECTIONS
Canola, Rapeseed, Mustard (oilseed and condiment)	<p>Seed rot / pre-emergence damping-off and post-emergence damping-off caused by soil-borne <i>Rhizoctonia solani</i> and <i>Fusarium</i> spp.</p> <p>Seed rot / pre-emergence damping-off, post-emergence damping-off, seedling blight and early-season root rot caused by soil-borne <i>Pythium</i> spp.</p> <p>Seed-borne <i>Alternaria</i> spp.</p> <p>Seed-borne blackleg (<i>Leptosphaeria maculans</i>)</p>	Apply 1.0 L per 100 kg seed.	<p>Use only in commercial treating equipment with closed transfer systems which can accurately control application rates and provide good distribution of the product onto the seed in the mixing chamber. No open transfer. Not for use on agricultural establishments, in hopper-box, slurry -box, or similar seed treatment application used at or immediately before planting</p> <p>Mix thoroughly before use or use entire container at one time.</p>

TANK-MIXTURES: PENTRIME may be tank-mixed with Poncho® 600 FS Seed Treatment Insecticide and/or DUPONT Lumiderm™ Insecticide Seed Treatment for application as a seed treatment on canola, rapeseed, and mustard (oilseed type). Refer to the registered label of each tank-mix partner for application rates, precautions and directions for use associated with those products, and follow the most restrictive label precautions and limitations.

Section 10: Application Cautions

DO NOT apply this product or treated seeds directly to freshwater 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.

SEED QUALITY AND STORAGE OF TREATED SEED

Laboratory and field studies have shown that PENTRIME applied to canola and rapeseed will not adversely affect germination. Due to seed quality conditions beyond the control of Bayer CropScience, 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 seeds, 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, no claims are made to guarantee germination of carry-over seed.

COLOURATION OF TREATED SEED: This product contains a colorant which will adequately color the treated seed. However, users are responsible for ensuring that the treated seed has an unnatural color. If the colorant contained in the formulation does not color the seed adequately, additional colorant must be added to the mixture while treating the seed. Regulations pertaining to coloration of treated seed enforced under the *Seeds Act* must be strictly adhered to when using this product.

Section 11: Use Limitations

USE RESTRICTIONS:

1. DO NOT use treated seed for food, feed or oil processing.
2. DO NOT use rape greens or rapeseed grown or harvested from PENTRIME treated seed for feed or human consumption. Rapeseed is only for industrial uses and can not be used for edible oil or any other human/feed consumption.

LABELLING TREATED SEED:

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

- This seed has been treated with PENTRIME, which contains penflufen, trifloxystrobin, and metalaxyl. DO NOT use for feed, food or oil processing. Store away from feeds and other foodstuffs.
- DO NOT use rape greens harvested from PENTRIME treated seed for feed or human consumption.
- This product demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of PENTRIME in areas where soils are permeable, particularly where water table is shallow, may result in ground water contamination.
- DO NOT leave exposed treated seeds on soil surface. Ensure that treated seed is properly incorporated at planting. Any spilled or exposed seeds should be incorporated into the soil or otherwise cleaned-up from soil surface.
- Wear coveralls over long-sleeved shirt, long pants, chemical-resistant gloves, head gear, shoes and socks and appropriate respiratory protection (i.e. NIOSH -approved dust-filtering respirator or fresh air hood) to minimize exposure to dust when handling treated seeds.
- Treated seed stored for 6 months should be tested for germination before planting. Do not store treated seed above 25°C or in direct sunlight.

ROTATIONAL CROPS: Canola, mustard, rapeseed, corn, beans and peas, including soybean (Crop Group 6) and cereal grains may be replanted at any time. All other crops may be planted after 30 days.

Section 12: Resistance Management Recommendations

RESISTANCE MANAGEMENT

For resistance management, please note that PENTRIME contains Groups 4, 7, and 11 fungicides. Any fungal population may contain individuals naturally resistant to PENTRIME and other Group 4, 7, and 11 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 PENTRIME or other Group 4, 7, and 11 fungicides with different groups that control the same pathogens.
- Fungicide use should be based on an integrated disease 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.
- Where possible, make use of predictive disease models to effectively time fungicide applications.
- Monitor treated fungal populations for resistance development. Notify Bayer CropScience if reduced sensitivity of the pathogen to PENTRIME 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 with a different 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 the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Bayer CropScience at 1-888-283-6847 or at www.bayercropscience.ca.