GROUP 7 FUNGICIDE

# **PENTHION™** Fungicide

**EMULSIFIABLE CONCENTRATE** 

FOR USE ON TURFGRASS

COMMERCIAL

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

ACTIVE INGREDIENT: Penthiopyrad 200 g/L

REGISTRATION NO. 33985 PEST CONTROL PRODUCTS ACT

**NET CONTENTS**: 1L - 1,500 LITRES

DANGER – EYE IRRITANT SKIN IRRITANT POTENTIAL SKIN SENSITIZER

Belchim Crop Protection Canada, Inc. 104 Cooper Dr., Unit 3 Guelph, ON N1C 0A4 1-866-613-3336

# PRECAUTIONS:

- KEEP OUT OF REACH OF CHILDREN.
- Severely irritating to the eye. DO NOT get in eyes.
- May irritate the skin. Avoid contact with skin.
- Potential skin sensitizer.
- Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. In addition, wear protective eyewear (goggles or face shield) during mixing, loading, clean-up and repair.
- Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables are available, use detergent and hot water. Keep and wash PPE separately from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Sod Farms: DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours. Golf Courses: DO NOT enter or allow entry into treated areas until sprays have dried.
- Apply only when the potential for drift to areas of human habitation and human activity (other than golf courses) such as parks, school grounds, and playing fields, is minimal.
  Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

#### **ENVIRONMENTAL PRECAUTIONS:**

- Toxic to aquatic organisms. Observe spray buffer zones specified under DIRECTIONS FOR USE
- To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.
- Avoid application when heavy rain is forecast.
- Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.
- 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.

#### STORAGE:

Store product in original container only, away from other pesticides, fertilizer, food or feed. Not for use or storage in or around the home. Keep container closed. To prevent contamination, store this product away from food or feed.

### **DISPOSAL:**

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 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.

### 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 center 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.

In case of emergency involving a poisoning or major spill call 1-866-336-2983.

**TOXICOLOGICAL INFORMATION:** Treat symptomatically.

# **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.

# <<DFU Booklet>>

GROUP 7 FUNGICIDE

# **PENTHION™** Fungicide

**EMULSIFIABLE CONCENTRATE** 

FOR USE ON TURFGRASS

# COMMERCIAL

READ THE LABEL AND THIS BOOKLET BEFORE USING

ACTIVE INGREDIENT: Penthiopyrad 200 g/L

REGISTRATION NO. 33985 PEST CONTROL PRODUCTS ACT

**NET CONTENTS**: 1L - 1000 LITRES

DANGER – EYE IRRITANT SKIN IRRITANT POTENTIAL SKIN SENSITIZER

Belchim Crop Protection Canada, Inc. 104 Cooper Dr., Unit 3 Guelph, ON N1C 0A4 1-866-613-3336

### **GENERAL INFORMATION**

PENTHION™ Fungicide is a broad-spectrum fungicide, recommended for control or suppression of foliar and soil-borne plant diseases and has curative and locally systemic activity. PENTHION™ Fungicide must be applied in a regularly scheduled protective spray program in rotation with other fungicides. See directions below for specific disease recommendations.

PENTHION™ Fungicide can be applied with ground using sufficient water to obtain thorough coverage of plants.

### **DIRECTIONS FOR USE**

<u>Field sprayer application</u>: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) fine classification. Boom height must be 60 cm or less above the turf or ground.

# Spray Buffer zones:

Use of the following spray methods or equipment DO NOT require a spray buffer zone: handheld or backpack sprayer, spot treatment, inter-row hooded sprayer, soil drench and soil incorporation.

The spray buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands). and estuarine/marine habitats.

		Spray Buffer Zones (meters) Required for the Protection of:			
Method of application	Crop	Freshwater Habitats of Depths:		Estuarine/Marine Habitats of Depths:	
		Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m
Field Sprayer	Turf	10	3	1	1

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

NOTE: Applicators may recalculate a site-specific spray buffer zone by combining information on current weather conditions and spray configuration for the following applications: all airblast applications, and for field which specify the following droplet size category wording on the product label: 'DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) fine classification.' To access the Spray Buffer Zone Calculator, please visit the Pesticides portion of the Canada.ca web site.

### **TURFGRASS**

PENTHION™ Fungicide may only be used on turfgrasses that are being grown for golf courses (tee box areas, roughs, fairways, greens, collars etc.) and commercial sod farms.

PENTHION™ Fungicide is a broad spectrum fungicide recommended for the control of many important diseases of turfgrass. For maximum performance PENTHION Fungicide should be applied preventatively but also may be used curatively for some diseases.

USE PENTHION™ Fungicide IN A PREVENTATIVE DISEASE CONTROL PROGRAM

Apply in sufficient water to ensure thorough coverage.

Apply the recommended rates as indicated in the directions for use in spray volumes up to 40 L/ 100 m<sup>2</sup> or 4,000 L/ha. Apply with a properly calibrated sprayer.

Apply after mowing OR allow sprayed area to completely dry before mowing.

For control of foliar diseases, allow sprayed area to completely dry before irrigation.

Under conditions optimum for high disease pressure, use the higher rate.

For optimum turf quality and disease control, use PENTHION Fungicide in conjunction with turf management practices that promote good plant health and optimum disease control.

Before use of any fungicide, proper diagnosis of the organism causing the disease is important. Use of diagnostic kits or other means of identification of the disease organism is essential to determine the best control measures.

For broader spectrum control, PENTHION Fungicide can be tank mixed with other fungicides registered for this use. Check compatibility before tank mixing. When tank-mixes are permitted, read and observe all label directions, including rates and restrictions for each product used in the tank-mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on both product labels.

Turf			
Disease Controlled	Dollar Spot (Sclerotinia homeocarpa syn. Clarireedia homeocarpa)		
Location	Golf course tees and greens, fairways and all other turfgrass		
Use rate/100m <sup>2</sup>	22.5-37.5 mL		
Use rate/ha	2.25-3.75 L		
Application Interval	14 days for golf course tees and greens		
(days)	14-21 days for golf course fairways and all other turfgrass.		
Comments	Begin application prior to or at the early stages of disease		
	development. Use the high rate for moderate to high disease		
	pressure and/or for curative situations		
Disease Controlled	Brown Patch (Rhizoctonia solani)		
Location	Golf course tees and greens, fairways and all other turfgrass		
Use rate/100m <sup>2</sup>	22.5-37.5 mL		
Use rate/ha	2.25-3.75 L		
Application Interval	14		
(days)			
Comments	Begin application at the early stages of disease development. Use		
	high rate for moderate to high disease pressure or for curative		
	situations		
Disease Controlled	Anthracnose foliar blight (Colletotrichum cereale)		
Location	Golf course tees and greens, fairways and all other turfgrass		
Use rate/100m <sup>2</sup>	22.5-37.5 mL		
Use rate/ha	2.25-3.75 L		
Application Interval	14		
(days)			
Comments	Begin applications at the early stages of disease development.		
	PENTION Fungicide may be applied in a tank mix with Daconil 2787,		
	which is registered for anthracnose control on turf. Use high rate of		
	PENTHION Fungicide for high disease pressure		
Disease Controlled	Grey snow mould ( <i>Typhula incarnata, Typhula ishikariensis</i> )		
Location	Golf course tees and greens, fairways and sod farms		
Use rate/100m <sup>2</sup>	53.5 mL		
Use rate/ha	5.35 L		

Application Interval (days)	Apply once per season.
Comments	Apply in late fall before snow cover. Do not apply on top of snow.

#### USE RESTRICTIONS FOR TURFGRASS

- DO NOT apply this product through any type of irrigation system.
- DO NOT apply more than 170 mL of PENTHION Fungicide per 100m<sup>2</sup> per year or 17 L of PENTHION Fungicide per hectare per year.
- Keep people and pets away from areas treated with PENTHION Fungicide until treated area has dried
- DO NOT apply using aerial application equipment

# **APPLICATION INFORMATION**

# **Mixing Instructions**

- 1. Fill clean spray tank 1/4 1/2 full of water.
- 2. While agitating, add the required amount of PENTHION™ Fungicide, continuing agitation until the product is completely dispersed.
- 3. Continue filling the tank, with agitation, adding desired additives

Mix thoroughly to fully disperse the fungicide; once dispersed continued agitation is required. Use mechanical or hydraulic means; do not use air agitation.

In some cases, tank mixing a pest control product with another pest control product or a fertilizer can result in biological effects that could include, but are not limited to: reduced pest efficacy or increased host crop injury. The user should contact Belchim Crop Protection Canada Inc. at 1-866-613-3336 or <a href="https://www.belchimcanada.com">www.belchimcanada.com</a> for information before mixing any pesticide or fertilizer that is not specifically recommended on this label. The user assumes the risk of losses that result from the use of tank mixes that do not appear on this label or that are not specifically recommended by Belchim Crop Protection Canada Inc.

#### SPRAYER CLEANUP:

Prior to application, start with clean, well maintained application equipment. Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove.

Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water. Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

### PRECAUTIONS:

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- Severely irritating to the eye. DO NOT get in eyes.
- May irritate the skin. Avoid contact with skin.
- Potential skin sensitizer.
- Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. In addition, wear protective eyewear (goggles or face shield) during mixing, loading, clean-up and repair.
- Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables are available, use detergent and hot water. Keep and wash PPE separately from other laundry.
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#### **ENVIRONMENTAL PRECAUTIONS:**

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### **RESISTANCE-MANAGEMENT RECOMMENDATIONS:**

For resistance management, PENTHION™ Fungicide contains a Group 7 Fungicide. Any fungal population may contain individuals naturally resistant to PENTHION™ Fungicide and other group 7 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 PENTHION™ Fungicide or other Group 7 fungicides with different groups that control the same pathogens. Use tank mixtures with fungicides from different groups when such use is permitted.
- Fungicide use should be based on an integrated disease management 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.
- 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 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.
- For further information and to report suspected resistance, contact Belchim Crop Protection Canada Inc. representatives at 1-866-613-3336.

# STORAGE:

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### **DISPOSAL:**

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**TOXICOLOGICAL INFORMATION:** Treat symptomatically.

#### NOTICE TO USER:

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