



GROUP	7,3	FUNGICIDE
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**PROPULSE<sup>™</sup> FUNGICIDE**

For control of listed diseases in dry beans.

COMMERCIAL

SUSPENSION

REGISTRATION NUMBER: 30511 PEST CONTROL PRODUCTS ACT

GUARANTEE:

Fluopyram	200 g/L
Prothioconazole	200 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.

READ THE LABEL AND BROCHURE BEFORE USING

KEEP OUT OF REACH OF CHILDREN

NET CONTENTS: 1 – 200 L

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

**For product information, call 1-888-283-6847.**

**In case of spills, poisoning or fire, call telephone emergency response number 1-800-334-7577 (24 hours a day).**

# PROPULSE FUNGICIDE

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## FOR MORE INFORMATION CONTACT:

Bayer CropScience Inc.  
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## GENERAL INFORMATION

### SECTION 1: NOTICE

#### 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.

### SECTION 2: THE PRODUCT

PROPULSE FUNGICIDE is a broad spectrum fungicide with preventative, systemic, and curative properties recommended for the control of certain crop diseases. PROPULSE FUNGICIDE is best suited for use in a preventative treatment program.

## SAFETY AND HANDLING

### SECTION 3: PRECAUTIONS

#### PRECAUTIONS:

**KEEP OUT OF REACH OF CHILDREN.** Avoid contact with the skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. If product comes in contact with clothing, remove all contaminated clothing, wash skin with soap and water and dress in clean clothing. Launder applicator clothing separate from other laundry.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools, and recreation areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

#### PROTECTIVE CLOTHING AND EQUIPMENT:

During mixing, loading, application, clean-up and repair activities, workers must wear long sleeved shirt and long pants, shoes plus socks, and chemical-resistant gloves.

#### RE-ENTRY RESTRICTION:

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

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](http://www.cropscience.bayer.ca).

## SECTION 4: FIRST AID AND TOXICOLOGICAL INFORMATION

### FIRST AID:

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 in eyes: Hold eye open and rinse slowly and gently with water for 15 to 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 symptomatically. Medical Personnel should contact Bayer's Medical Information Services, Toll-Free: 1-800-334-7577.

## SECTION 5: ENVIRONMENTAL PRECAUTIONS

TOXIC to birds. TOXIC to aquatic organisms and non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the high water mark. Do not contaminate water when disposing of equipment washwaters. This product may contaminate water through runoff. This product has a potential for runoff several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

Residues of this product demonstrate the properties and characteristics associated with chemicals detected in groundwater. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

## SECTION 6: STORAGE

Do not contaminate water, food, or feed by storage or disposal. Do not store below freezing. If stored for 1 year or longer, shake well before using. Store the tightly closed container away from feeds, seeds, fertilizer, plants and foodstuffs. Do not use or store in or around the home. Keep the product in the original container during storage. In case of fire, leaking or damaged containers, call toll free 1-800-334-7577.

## SECTION 7: DISPOSAL

### Recyclable Container 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.

### 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 cleanup of spills.

### Disposal of Unused Spray Solution:

If any spray solution remains in the tank after spraying is finished, it should be sprayed on the perimeter of the area just sprayed, away from water supplies, ditches, and irrigation canals.

## SECTION 8: APPLICATION INFORMATION AND PRECAUTIONS

### DIRECTIONS FOR USE

#### APPLICATION INFORMATION:

Thorough coverage of all plant parts to be protected is essential for good disease control. Use sufficient water volume and spray pressure to provide thorough and uniform coverage for optimum disease control.

DO NOT apply by air. DO NOT apply this product through any type of irrigation system.

Apply in a minimum spray volume of 100 L water/ha.

#### APPLICATION PRECAUTIONS:

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 ASAE medium classification.

When applied as a tank-mix combination, read and observe all label directions, including rates, restrictions, and grazing limitations for each product used in the tank-mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on both labels.

Field sprayer application: **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) medium classification. Boom height must be 60 cm or less above the crop or ground.

#### **Buffer zones:**

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

### Aquatic and terrestrial buffer zones

Method of application	Crop	Buffer Zones (metres) Required for the Protection of:		
		Aquatic Habitat of Depths:		Terrestrial habitats
		Less than 1 m	Greater than 1 m	
Field sprayer	Dry beans	1	1	1

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) 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.

<b>SECTION 9: CROP, DISEASE, RATE, TIMING</b>
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<b>DRY BEANS</b>		
<p>Bean (<i>Lupinus</i> spp., includes grain lupin, sweet lupin, white lupin, and white sweet lupin), Bean (<i>Phaseolus</i> spp., includes field bean, kidney bean, lima bean, navy bean, pinto bean, tepary bean), Bean (<i>Vigna</i> spp., includes adzuki bean, blackeyed pea, catjang, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean), Broad Bean (dry), Lablab Bean.</p> <p>Including plant parts that will be used as animal feed.</p>		
Disease Control	Rate (mL/ha)	Use Information
<p>White mold (<i>Sclerotinia sclerotiorum</i>)</p>	750	<p>Begin fungicide applications preventatively.</p> <p>When disease pressure is high or when agronomic or weather conditions are conducive to disease development, continue applications as needed on a 7- to 14-day interval.</p> <p>Use shorter intervals for best protection.</p> <p>Ensure that the area to be treated is covered uniformly. Good spray coverage and canopy penetration are important for best results.</p>
<p>Ascochyta blight (<i>Ascochyta</i> spp.)</p> <p>Anthracnose (<i>Colletotrichum lindemuthianum</i>) (on dry bean only)</p> <p>Asian Soybean Rust</p>	500 - 750	<p>Begin fungicide applications preventatively.</p> <p>When disease pressure is high or when agronomic or weather conditions are conducive to disease development, continue applications as needed, on a 10 – 14-day interval.</p> <p>Use the higher rate when conditions for heavy infestation exist.</p>

<i>(Phakopsora pachyrhizi)</i>		<p>Use the higher rate when growing less resistant cultivars.</p> <p>Ensure that the area to be treated is covered uniformly. Good spray coverage and canopy penetration are important for best results.</p>
<p><b>Restrictions:</b> Do not apply more than 1.5 L of PROPULSE FUNGICIDE per hectare per season. Do not apply within 14 days of harvest of seed. Do not allow livestock to graze treated areas and do not harvest for forage and hay for 7 days after application. To limit the potential for development of disease resistance to this fungicide, do not make more than 2 sequential applications of PROPULSE FUNGICIDE or any Group 7 or Group 3 containing fungicide before rotating with a fungicide from a different Group.</p>		

**SECTION 10: ROTATIONAL CROP RESTRICTIONS:**

Do not replant to alfalfa for 14 days after application. Crops listed on this label and chickpeas, guar, lentils, cereals, corn, soybeans, peanuts, cucurbit vegetables, oilseeds, tuberous and corm vegetables and sugarbeets may be rotated anytime following the last application of PROPULSE FUNGICIDE. All other crops may be replanted 30 days following the last application of PROPULSE FUNGICIDE.

**SECTION 11: MIXING INSTRUCTIONS**

PROPULSE FUNGICIDE must be applied with properly calibrated, clean equipment. Prior to adding PROPULSE FUNGICIDE to the spray tank, ensure that the spray tank is thoroughly clean:

- Add one-half of the required amount of water to the spray or mixing tank and start agitation.
- Add the required quantity of PROPULSE FUNGICIDE to the water and complete filling with water to the required total volume.
- Maintain agitation throughout mixing and spraying.



## SECTION 12: RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, PROPULSE FUNGICIDE contains a Group 7 and a Group 3 fungicide. Any fungal population may contain individuals naturally resistant to PROPULSE FUNGICIDE and other Group 7 and Group 3 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same field. 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 PROPULSE FUNGICIDE or other Group 7 and Group 3 fungicides with different groups that control the same pathogens.
- Use tank mixtures with fungicides from a different group that is effective on the target pathogen when such use is permitted.
- The total number of sprays containing Group 7 fungicides in a mixture should not exceed half of the total number of fungicide applications in a season.
- 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. Notify Bayer if reduced sensitivity of the pathogen to PROPULSE FUNGICIDE 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 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 a Bayer representative at 1-888-283-6847 or at [www.cropscience.bayer.ca](http://www.cropscience.bayer.ca).

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