

2008-3027  
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GROUP	40	FUNGICIDE
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ACROBAT® 50 WP FUNGICIDE

Fungicide for use on potatoes and greenhouse ornamentals  
DO NOT apply on greenhouse cut flowers

AGRICULTURAL

GUARANTEE: Dimethomorph ..... 50%

REGISTRATION NO. 27700      PEST CONTROL PRODUCTS ACT

POTENTIAL SKIN SENSITIZER

NET CONTENTS: 1.82 Kg

KEEP OUT OF REACH OF CHILDREN  
READ THE LABEL BEFORE USING THIS PRODUCT

IN CASE OF EMERGENCY ENDANGERING LIFE OR PROPERTY  
INVOLVING THIS PRODUCT, CALL DAY OR NIGHT,  
1-800-454-2673

BASF Canada Inc.  
100 Milverton Drive  
5th Floor  
Mississauga, Ontario  
L5R 4H1  
1-877-371-2273

ACROBAT® is a registered trademark of BASF.

## DIRECTIONS FOR USE

**ACROBAT® 50 WP Fungicide** has excellent protectant, systemic and anti-sporulant activity against late blight on potatoes and downy mildew on greenhouse ornamentals.

DO NOT apply to plants grown for, or marketed as 'cut flowers'.

DO NOT use on residential, commercial, or industrial landscapes.

DO NOT use high pressure handheld equipment to apply **ACROBAT 50 WP Fungicide**.

DO NOT use backpack sprayers to apply **ACROBAT 50 WP Fungicide**.

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

## ENVIRONMENTAL HAZARDS

Tank-mix combinations are toxic to fish and other aquatic organisms. Observe buffer zones, specified under Directions for Use.

**DO NOT** contaminate irrigation/drinking water supplies or aquatic habitat such as lakes, rivers, sloughs, ponds, coulees, prairie potholes, creeks, marshes, streams, reservoirs and wetlands by cleaning of equipment or disposal of wastes.

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.

## Potatoes Application Rate Table

Crop	Disease	Application Rate (g/ha)
Potatoes Late blight, tuber blight*	<i>Phytophthora infestans</i>	450 g product/hectare (225 g a.i./hectare) in a tank mix with Polyram DF or Dithane DG Rainshield or Bravo 500, at the recommended product label rate

\*When used according to label recommendations, **ACROBAT 50 WP Fungicide** also reduces tuber blight. **ACROBAT 50 WP Fungicide** does not control early blight disease. In order to reduce the risk of the development of fungicide resistance **ACROBAT 50 WP Fungicide** must be used as a tank-mix with other fungicides.

Crop	Disease	Application Rate (g/ha)
<p><b>Application Rate</b>  <b>DO NOT apply ACROBAT 50 WP Fungicide alone. ACROBAT 50 WP Fungicide must</b> be tank-mixed with one of the following fungicides: Polyram® DF, Dithane DG Rainshield or Bravo® 500. Apply <b>ACROBAT 50 WP Fungicide</b> at 450 g product/hectare (225 g a.i./hectare), in a tank mix with Polyram DF or Dithane DG Rainshield or Bravo 500, at the recommended product label rate.</p> <p>Refer to the respective tank-mix partner labeling for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners with respect to the maximum number of applications, application timing and PHI.</p> <p>Water volume will vary depending on the amount of plant growth. Use sufficient water to obtain adequate spray coverage. Spray volumes can range from 50-100 L/ha for concentrate sprays to 225-1600 L/ha for dilute sprays.</p> <p><b>DO NOT</b> apply more than 3 applications per season.</p>		
<p><b>Timing of Application</b>  To protect crops against late blight, use <b>ACROBAT 50 WP Fungicide</b> as a protectant. Make the first application when disease threatens or when first visible signs of disease occur within the field or nearby. Apply every 5 - 7 days under high disease pressure or every 7 - 10 days under low disease pressure. It is recommended to apply <b>ACROBAT 50 WP Fungicide</b> in alternation with a fungicide having a different mode of action. Under high level of late blight infection, apply <b>ACROBAT 50 WP Fungicide</b> after topkill to reduce tuber blight.</p> <p><b>DO NOT</b> apply <b>ACROBAT 50 WP Fungicide</b> within 4 days of harvest.</p> <p><b>DO NOT</b> plant a new crop in the treated area within 120 days of the last application.</p> <p>A minimum interval of 5 days between applications is required.</p>		

**Greenhouse Ornamentals Application Rate Table**

Crop	Disease	Application Rate (g/100 L) Maximum Rate per Hectare per Season
<p><b>Greenhouse ornamentals including:</b> Azalea, begonia, chrysanthemum, cordyline, dianthus, dieffenbachia, ficus, geranium, gerbera, iberus (candytuft), impatiens, lisianthus, pansy, periwinkle, Persian violet, phlox primula, rose (hybrid tea, miniature), spathiphyllum, stock and verbena, viola</p> <p><b>ACROBAT 50 WP Fungicide</b> may be applied to the following crops: African violet, dusty miller sweet alyssum and snapdragon may show slight stunting or phytotoxic symptoms after repeat applications</p>	<p>Downy mildew caused by <i>Peronospora parasitica</i>, <i>P. Violae</i>, <i>P. sparsa</i>, <i>P. Antirrhini</i> and <i>P. phlogina</i></p>	<p>48 grams/100 litres</p>
<p>Apply to drip, ensuring complete coverage of flowers, foliage and stems. Use a full coverage spray applied on 7-14 day interval throughout the production cycle. <b>ACROBAT 50 WP Fungicide MUST BE</b> applied preventatively, before disease symptoms are evident, to be effective.</p> <p><b>DO NOT</b> apply more than 4 applications per season.</p> <p><b>DO NOT</b> apply more than 2 consecutive sprays before alternating with a fungicide with an alternative mode of action.</p> <p><b>DO NOT</b> apply on greenhouse cut flowers.</p> <p>Due to the large number of species and varieties/cultivars users should conduct small scale tests under local conditions prior to wide-scale use.</p>		

**Outdoor Grown Ornamentals, Herbaceous Perennial and Annual Plants  
Application Rate Table**

Crop	Disease	Application Rate (g/100 L)
Outdoor grown ornamentals, herbaceous perennial and annual plants	Downy mildew caused by <i>Peronospora parasitica</i> , <i>P. Violae</i> , <i>P. sparsa</i> , <i>P. Antirrhini</i> and <i>P. phlogina</i>	48 g/100 L (not to exceed 450 g/ha or 225 g a.i./ha)
<p>Apply a foliar application of <b>ACROBAT 50 WP Fungicide</b> at a rate of 450 g product/ha in a minimum water volume of 200 L/ha, sprayed to run-off. Apply a maximum of 4 applications per crop per season at 7 to 14 day intervals. Apply no more than 2 consecutive sprays before alternating with a fungicide with a different mode of action registered to control downy mildew. <b>ACROBAT 50 WP Fungicide</b> must be applied preventatively, before disease symptoms are evident, to be effective. Make first application when conditions are favourable for disease development.</p> <p><b>Note:</b> Not all species have been tested for phytotoxicity. It is recommended that the user test a small sample before applying to the entire groups.</p>		

**Outdoor, Container and Field Grown Ornamental Plants (including conifers) in Nurseries and Landscape Plantings Application Rate Table**

Crop	Disease	Application Rate (g/100 L)
Outdoor, container and field grown ornamental plants (including conifers) in nurseries and landscape plantings	Suppression of sudden oak death* ( <i>Phytophthora ramorum</i> )	48 g/100 L (not to exceed 450 g/ha or 225 g a.i./ha)
<p>Apply a foliar application of <b>ACROBAT 50 WP Fungicide</b> at a rate of 450 g product/ha in a minimum water volume of 200 L/ha, sprayed to run-off. Apply a maximum of 4 applications per crop per season at 10 to 14 day intervals. Apply no more than 2 consecutive sprays before alternating with a fungicide with a different mode of action registered to suppress sudden oak death. <b>ACROBAT 50 WP Fungicide</b> must be applied preventatively, before disease symptoms are evident, to be effective. Make first application when conditions are favourable for disease development.</p> <p>*For suppression of sudden oak death caused by <i>Phytophthora ramorum</i> on those ornamentals deemed susceptible to this disease by the Canadian Food Inspection Agency (CFIA). For a complete list of the ornamental species, refer to the publication “List of Genera Regulated for <i>Phytophthora ramorum</i> (Sudden Oak Death)”, which is updated regularly: <a href="http://www.inspection.gc.ca/english/plaveq/protect/dir/sodspe.shtml">http://www.inspection.gc.ca/english/plaveq/protect/dir/sodspe.shtml</a>.</p> <p><b>Note:</b> Not all species have been tested for phytotoxicity. It is recommended that the user test a small sample before applying to the entire groups.</p>		

## **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.

## **AERIAL APPLICATION (MANITOBA, SASKATCHEWAN AND ALBERTA ONLY)**

DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply when wind speed is greater than 16 km/h at flying height at the site of application. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length **MUST NOT** exceed 65 % of the wing- or rotorspan.

Prior to aerial application, check aircraft for uniformity of spray pattern, spray swath width and output. Spray volumes of 50 litres/ha are generally optimum. If foliage is dense, use an output that will ensure optimum fungicide penetration. Spray swaths should be marked using flaggers who are in completely enclosed vehicles, by counting rows or by some other marking device. **DO NOT** apply if rain is likely within 2 to 3 hours of spraying and apply to dry foliage.

Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

### **Aerial Use Precautions**

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under conditions of good practice specific to aerial application as outlined in the National Aerial Pesticide Application Manual, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

### **Aerial Operator Precautions**

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.

It is desirable that the pilot have communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label

precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-877-371-BASF (2273) or obtain technical advice from the distributor or your provincial agricultural representative.

## **BUFFER ZONES**

The 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.

<b>Method of application</b>	<b>Buffer zone (metres) required for the protection of aquatic habitat</b>
Field sprayer*	50
Aerial	100

\*For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

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.

## **RESISTANCE-MANAGEMENT RECOMMENDATIONS**

It is known that plant diseases can develop resistance when exposed to one type of product or even products of similar chemistry. Good management practices will minimize the risk of resistance development. Use cultural practices to minimize the sources of disease as well as early preventive applications of fungicides. Consult your local extension services for disease outbreak forecasts and additional integrated pest management recommendations for your area.

For resistance management, please note that **ACROBAT 50 WP Fungicide** contains a Group 40 fungicide. Any fungal population may contain individuals naturally resistant to **ACROBAT 50 WP Fungicide**. The resistant individuals may dominate the fungal population 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:

- Avoid application of more than two consecutive sprays of **ACROBAT 50 WP Fungicide** or other fungicides in the same group in a season.
- Use tank mixtures with fungicides from a different group when such use is permitted.
- Fungicide use should be based on an IPM program that includes scouting, historical information related to pesticide use and crop rotation and considers cultural, biological and other chemical control practices.
- 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 BASF at 1-877-371-2273.

## **MIXING**

1. Fill the spray tank one-half to three-quarters full with water.
2. Using a calibrated measuring device, add the required amount of **ACROBAT 50 WP Fungicide** while agitating the spray solution.
3. Using a separate calibrated mixing device, add the required amount of mancozeb, penncozeb, metiram or chlorothalonil to the tank.
4. Fill the remainder of the tank with water.

## **PRECAUTIONS**

1. **KEEP OUT OF REACH OF CHILDREN.**
2. Potential skin sensitizer.
3. During all activities, workers must wear long pants, long-sleeved shirt, chemical-resistant gloves and boots. During mixing, loading, clean-up and repair activities, workers must also wear safety goggles or a face shield. During mixing and loading workers must also wear a respirator with a NIOSH/MSHA/BHSE approved vapour removing cartridge with a pre-filter approved for pesticides OR a NIOSH/MSHA/BHSE approved canister for pesticides. If using low-pressure handheld equipment, mixer, loader, and applicator must also wear coveralls and chemical resistant gloves.

4. Wash hands before eating, drinking, smoking or using the toilet. Change out of work clothes and take a bath or shower after handling or spraying the product. Launder protective clothing before re-use.
5. Do not enter treated areas within 12 hours after application.
6. 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 web site at [www.croplife.ca](http://www.croplife.ca).

## **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 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.

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

## **TOXICOLOGICAL INFORMATION**

There is no specific antidote. Treat symptomatically.

## **STORAGE**

Store under cool and dry conditions in secure, well-ventilated buildings, away from foodstuffs and animal feed and out of reach of children.

## **DISPOSAL**

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.
5. 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.

#### **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.

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