GROUP 40 FUNGICIDE

# MICORA® Fungicide

**FUNGICIDE** 

**SUSPENSION** 

**COMMERCIAL** 

For control or suppression of downy mildew or listed Phytophthora diseases in greenhouse and outdoor ornamental crops, greenhouse tomatoes, bell peppers, lettuce, cucumbers and basil.

# **ACTIVE INGREDIENT:**

Mandipropamid .......250 g/L

Contains 1,2-benzisothiazolin-3-one at 0.017% as a preservative.

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

REGISTRATION NO: 30759

PEST CONTROL PRODUCTS ACT

**NET CONTENTS**: 50 mL to Bulk

#### Syngenta Canada Inc.

140 Research Lane, Research Park

Guelph, Ontario N1G 4Z3 Telephone: 1-877-964-3682

Label

#### **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.

#### **FIRST AID**

**IN CASE OF POISONING,** contact a physician or a poison control centre **IMMEDIATELY**. 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

There is no specific antidote if this product is ingested. Treat symptomatically. There is no known medical condition likely to be aggravated by the exposure.

#### **PRECAUTIONS**

KEEP OUT OF REACH OF CHILDREN.

Applicators and other handlers must wear long-sleeve shirt and long pants when mixing, loading and applying and during clean-up and repair activities. Wear chemical resistant gloves during mixing, loading, clean-up and repair activities. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Wash thoroughly with soap and water after handling. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

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

If this pest control product is to be used on a commodity that may be exported to other countries in the world and you require information on acceptable residue levels in these countries, please contact Syngenta Canada Inc. at 1-87-SYNGENTA / 1-877-964-3682.

#### **ENVIRONMENTAL PRECAUTIONS**

#### Runoff

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.

#### **STORAGE**

Store in a cool, dry place. Do not store food, beverages or tobacco products in storage area.

#### **DECONTAMINATION AND DISPOSAL**

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.

#### **CONTAINER DISPOSAL:**

#### 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 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 use this container for any other purpose.

IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING, CALL 1-800-327-8633 (1-800-FASTMED)

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# Syngenta Canada Inc.

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Pamphlet

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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.

#### **STORAGE**

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#### **GENERAL INFORMATION**

MICORA® Fungicide is a fungicide for control or suppression of diseases in greenhouse and outdoor ornamental crops, greenhouse tomatoes, bell peppers, lettuce, cucumbers and basil.

#### **DIRECTIONS FOR USE**

### **Rotational Crop Restrictions**

**DO NOT** plant any crop which is not registered for use with MICORA Fungicide for a period of 30 days after the last application.

**DO NOT** apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), or estuarine/marine habitats.

**DO NOT** contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

**DO NOT** allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

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

#### **APPLICATION PROCEDURES**

#### **Ground Application:**

Spray nozzles should be selected which will provide accurate and uniform spray deposition. Use spray nozzles, which provide medium-sized droplets and reduce drift. To help ensure accuracy, calibrate sprayer before each use. Do not apply MICORA Fungicide through any type of ultra low volume (ULV) spray system. For information on spray equipment and calibration, consult sprayer manufacturers and/or the local agricultural representative specialists.

Apply MICORA Fungicide using sufficient water volume to provide thorough and uniform coverage. Use a minimum of 100 L/ha unless otherwise indicated on this label. In situations where a dense canopy exists and/or pest pressure is high, use greater water volumes. Avoid making applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. Avoid spray overlap.

Do not apply this product using fogging equipment (handheld or automated), or using handheld mist blowers/airblast equipment.

### **Precautions:**

- 1) Select nozzles that can produce the desired droplet sizes at the normal rated pressure range.
- 2) The sprayer should travel at a uniform speed across the crop.

<u>Sprayer application:</u> DO NOT apply during periods of dead calm. 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 crop or ground.

# **Product Specific Precautions**

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-87-SYNGENTA (1-877-964-3682) or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

**Volume**: Apply the recommended rate in the greenhouse water volume guidelines.

#### **Greenhouse Water Volume Guidelines**

Crop	Size	Height (m)	Volume per unit area (L/ha)
Tomato	Small	0.6	285
	Medium	1.2	627
	Large	2.7	1200-1400
Bell Pepper and	Sma	II	300-500
Cucumber	Mediu	ım	500-1000
	Large		1000-1500
Ornamentals	Average ornamental crop		1000

#### **MICORA Rate Conversion Chart**

mL Product/ha	g ai/ha	Treated ha/1 L Product
400	100	2.5
500	125	2.0
600	150	1.7

#### **MIXING PROCEDURES**

- 1. Add 1/2 of the required amount of water to the mix tank.
- 2. With the agitator running, add the desired amount of MICORA Fungicide to the tank.
- 3. Continue agitation while adding the remainder of the water.
- 4. Begin application of the solution after MICORA Fungicide has completely dispersed into the mix water.
- 5. Maintain agitation until all of the mixture has been applied.

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean spray equipment before using this product. Vigorous agitation is necessary for proper dispersal of the product. Maintain maximum agitation throughout the spraying operation. Do not let the spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area. Keep product container tightly closed when not in use.

#### **DIRECTIONS FOR USE**

<u>Integrated Pest (Disease) Management</u>: MICORA Fungicide should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation and removal of plant debris in which inoculum overwinters.

**Resistance Management:** Follow the resistance management guidelines in the Resistance Management Recommendations Section. Do not apply more than one application of MICORA Fungicide or any other Group 40 fungicide before alternation with at least one application of a fungicide that is not a group 40 unless otherwise stated in the crop section.

GREENHOUSE VEGETAB	LE CROPS
CROP	GREENHOUSE TOMATOES (For use in greenhouse only - not for
	transplant to the field)
PEST	For control of late blight (Phytophthora infestans)
RATE	400-600 mL product/ha (100-150 g ai/ha)
PEST	For suppression of phytophthora blight ( <i>Phytophthora capsici</i> ) – foliar phase
RATE	600 mL product/ha (150 g ai/ha)
APPLICATION METHOD	MICORA Fungicide applications should begin prior to disease development and continue throughout the season on a 7-10 day schedule/interval of fungicides, following the resistance management guidelines.  Apply MICORA as a foliar spray beginning at the first sign of disease or based on local recommendations. For best results, use sufficient water
	volume to provide thorough coverage. Refer to Greenhouse Water Volumes Guidelines.  The use of a non-ionic adjuvant (0.25% v/v) is recommended.
PEST	For suppression of phytophthora root and crown rot ( <i>Phytophthora capsici</i> )  – Soil phase
APPLICATION METHOD	Apply as a drench to the base of the plant in sufficient water to ensure the root area is covered.
RATE	600 mL product/ha (150 g ai/ha)
APPLICATION	7-10
INTERVAL (days)	
Re-entry Interval (REI)	12 hours after application
PHI (days)	1
APPLICATION DIRECTIONS	. For suppression of the soil phase of Phytophthora root and crown rot, MICORA Fungicide must be applied in a manner that ensures the product solution adequately saturates the target crop root/crown zone via in-furrow or drip (trickle) chemigation. When applied to the root/crown zone before, during, or soon after sowing once roots are present or transplanting the crop, MICORA Fungicide will suppress phytophthora root and crown rot that limits crop stand establishment. Subsequent applications can be made via in furrow and trickle drip irrigation on a 7-10 day interval.  DO NOT make more than four applications per crop cycle of MICORA Fungicide foliar or soil.  DO NOT make more than two consecutive applications before switching to another effective, non-Group 40 fungicide for suppression of phytophthora blight ( <i>Phytophthora capsici</i> ) and phytophthora root and crown rot ( <i>Phytophthora capsici</i> ).
CROPS	<b>GREENHOUSE LETTUCE</b> (For use in greenhouse only - not for transplant to the field)
PESTS	For control of downy mildew ( <i>Bremia lactucae</i> ), blue mold ( <i>Peronospora effusa</i> )
RATE	400-600 mL product/ha (100-150 g ai/ha)
APPLICATION INTERVAL (days)	7-10
Re-entry Interval	12 hours after application
PHI (days)	7

APPLICATION DIRECTIONS	MICORA Fungicide applications should begin prior to disease development and continue throughout the season on a 7-10 day schedule of fungicides, following the resistance management guidelines.
	The use of a non-ionic adjuvant (0.25% v/v) is recommended.
	<b>DO NOT</b> make more than four applications per crop cycle of MICORA Fungicide.
	<b>DO NOT</b> make more than two consecutive applications before switching to another effective, non-Group 40 fungicide.

CROPS	GREENHOUSE CUCUMBER (For use in greenhouse only - not for transplant to the field)
PESTS	For suppression of downy mildew ( <i>Pseudoperonospora cubensis</i> )
RATE	400 mL product/ha (100 g ai/ha) with 1.5L/ha of PREVICUR N Fungicide
Re-entry Interval (REI)	12 hours after application
	2
PHI (days)	_
APPLICATION DIRECTIONS	Apply as a resistance management tool in a tank mix as a foliar application when plants begin to vine or when disease threatens. Refer to Greenhouse Water Volumes Guidelines.
	The use of a non-ionic adjuvant (0.125% v/v) is recommended.
	DO NOT make more than one application per crop cycle.  DO NOT apply by chemigation.
	Do not allow effluent or runoff from greenhouse containing this product to enter lakes, streams, ponds or other waters.
	For Resistance Management purposes, do not apply Micora Fungicide to greenhouse-grown seedlings to be transplanted in the field, until after they have been transplanted out.

**NOTE TO USER:** READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS.

The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than Syngenta Canada Inc. under the User Requested Minor Use Label Expansion program. For these uses, Syngenta Canada Inc. has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) under all environmental conditions or for all crop varieties when used in accordance with the label. The user should test the product on a small area first, under local conditions and using standard practices, to confirm the product is suitable for widespread application.

GREENHOUSE AND OUTDOOR ORNAMENTALS	
CROP	GREENHOUSE AND OUTDOOR ORNAMENTALS
PEST	For control of downy mildew (Peronospora spp.)
	For suppression of Phytophthora foliar blight ( <i>Phytophthora nicotianae</i> and
	Phytophthora ramorum)
RATE	30 – 60 mL/100 L
APPLICATION	7-14 days
INTERVAL (days)	
APPLICATION DIRECTIONS	Begin foliar applications prior to disease development and continue on a 7- to 14 day interval when conditions are favorable for disease development as a preventative spray or at first sign of disease symptoms. Use the shorter interval and/or higher rates under high disease pressure or when conditions are conducive to disease development.  The use of a non-ionic adjuvant (0.25% v/v) is recommended.  DO NOT make more than two consecutive applications before switching to another effective, non-Group 40 fungicide.  DO NOT make more than four applications per crop cycle of MICORA
	Plant safety has been found to be acceptable for many ornamental plants, however, not all possible plant species and varieties have been tested under all conditions. It is recommended to test MICORA Fungicide on a small portion of the crop to ensure that a phytotoxic response will not occur.

CROPS	GREENHOUSE BELL PEPPER (For use in greenhouse only - not for transplant to the field)
PESTS	For suppression of root and crown rot (Phytophthora capsici) – soil phase
APPLICATION METHOD	Apply as a drench to the base of the plant in sufficient water to ensure the root area is covered.
PESTS	For suppression of Phytophthora blight on the stems, leaves and fruit ( <i>Phytophthora capsici</i> ) – foliar phase
APPLICATION METHOD	MICORA Fungicide applications should begin prior to disease development and continue throughout the season on a 7-10 day schedule/interval of fungicides, following the resistance management guidelines.  Apply MICORA as a foliar spray beginning at the first sign of disease or based on local recommendations. For best results, use sufficient water volume to provide thorough coverage. Refer to Greenhouse Water Volumes Guidelines.
RATE	600 mL product/ha (150 g ai/ha)
APPLICATION INTERVAL	7-10 days
PRE-HARVEST INTERVAL (PHI)	1 day
Re-entry Interval (REI)	12 hours after application
APPLICATION DIRECTIONS	For suppression of the soil phase of Phytophthora root and crown rot, MICORA Fungicide must be applied in a manner that ensures the product solution adequately saturates the target crop root/crown zone via in-furrow or drip (trickle) chemigation. When applied to the root/crown zone before, during, or soon after sowing once roots are present or transplanting the crop, MICORA Fungicide will suppress phytophthora root and crown rot that limits crop stand establishment. Subsequent applications can be made via in furrow and trickle drip irrigation on a 7-10 day interval.
	DO NOT make more than four applications per crop cycle of MICORA Fungicide foliar or soil.  DO NOT make more than two consecutive application before switching to
CROPS	another effective, non-Group 40 fungicide.  GREENHOUSE BASIL (For use in greenhouse only - not for transplant to
	the field)
PESTS	For control of downy mildew ( <i>Peronospora belbahrii</i> )
RATE	583 mL product/ha (146 g ai/ha)
APPLICATION INTERVAL	7 days
PRE-HARVEST INTERVAL (PHI)	1 day
Re-entry Interval (PHI)	12 hours after application
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# APPLICATION DIRECTIONS

Foliar application using ground equipment only. Apply in a spray volume of 95 – 280 L/ha. Apply prior to disease development and continue fungicides throughout the season, allowing at least a 7 day interval. Follow resistance management guidelines.

The use of a non-ionic adjuvant (0.25% v/v) is recommended.

**DO NOT** make more than two consecutive applications before switching to another effective, non-Group 40 fungicide.

**DO NOT** apply by chemigation.

**DO NOT** make more than four applications per crop cycle of MICORA Fungicide.

# RESISTANCE MANAGEMENT RECOMMENDATIONS

For Resistance management, please note that MICORA Fungicide contains a Group 40 fungicide. Any fungal population may contain individuals naturally resistant to MICORA Fungicide and other Group 40 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same crop. 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 MICORA Fungicide or other Group 40 fungicides with different groups that control the same pathogens.

Do not exceed the total number of applications of MICORA Fungicide per season per crop.

Do not apply sequential treatments of MICORA Fungicide, or other fungicides in the same fungicide group, in a season. Do not apply at rates lower than recommended on the label.

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 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 sign of 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, to which pathogen resistance has not developed.

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 company representatives at 1-87-SYNGENTA (1-877-964-3682) or at <a href="https://www.syngenta.ca">www.syngenta.ca</a>.

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