2023-1879 2024-01-31

This label has been updated according to the re-evaluation decision of Zoxamide RVD2023-04 and Chlorothalonil RVD 2018-11. While users are encouraged to follow this updated label immediately, the previously approved label is valid until 02-09-2025 in accordance with the phase out period set out in RVD2023-04. This previously approved label will be provided upon request by emailing <u>hc.pmra.info-arla.sc@canada.ca</u>. In your email please include the product name and Registration number of the label you are requesting.

Base label

$ZING!^{TM}$ Fungicide



AGRICULTURAL Suspension

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



EYE IRRITANT POTENTIAL SKIN SENSITIZER

ACTIVE INGREDIENT: Chlorothalonil.....500 g/L Zoxamide.......85 g/L

Contains 1,2-benzisothiazolin-3-one at 0.02 % as a preservative

REGISTRATION NO. 32363 PEST CONTROL PRODUCTS ACT

NET CONTENTS: _____



Gowan Company, L.L.C P.O. Box 5569 Yuma, AZ 85364-5569 1-800-960-4318

ZING!™Trademark of Gowan Company, L.L.C.

GENERAL INFORMATION

Zing! is a broad-spectrum protectant fungicide. Optimum disease control is achieved when the fungicide is used according to label directions and applied in a regularly scheduled preventative spray program.

The use of Zing! is compatible with the principles of Integrated Pest Management (IPM) and programs that attempt to minimize disease resistance to fungicides. Unlike single-site mode of action fungicides which are at risk from disease resistance, Zing!, with a multi-site mode of action, may be used to delay or prevent the development of resistance to single site fungicides.

SAFETY AND HANDLING

PRECAUTIONS

Hazards to Humans and Domestic Animals

KEEP OUT OF REACH OF CHILDREN

Potential skin sensitizer

CAUTION

Harmful if swallowed, absorbed through skin or inhaled. May irritate eyes. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

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

PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

Ground - Personal Protective Equipment (PPE):

Applicators:

- Groundboom equipment with an enclosed cab
- Long-sleeved shirt and long pants, shoes plus socks
- Gloves are not required for an applicator in an enclosed cab.
- Wear chemical-resistant gloves when leaving the cab for clean-up and repair.

Mixers and Loaders (during mixing, loading, application, clean-up, and repair):

- · Coveralls over long-sleeved shirt and long pants, shoes and socks
- Chemical-resistant gloves
- A respirator with a NIOSH-approved organic-vapour-removing cartridge with a pre-filter approved for pesticides OR a NIOSH-approved canister approved for pesticides.
- Chemical-resistant apron.

Aerial – Personal Protective Equipment (PPE):

Applicators:

- Wear a long-sleeved shirt, long pants, socks and shoes during application.
- Gloves are not required during application within a closed cockpit.
- Field crew and the mixer/loaders: Mixers and loaders must use a closed system
- Coveralls over a long-sleeved shirt and long pants, shoes and socks
- Chemical-resistant gloves

USER SAFETY RECOMMENDATIONS Users should:

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Use good pesticide application practices and apply only when the potential for drift to non-target or sensitive areas is minimal. Take into consideration residential areas, areas of human activities, bodies of water, meteorological conditions, application equipment and sprayer settings used for application. Do not spray when the wind is blowing towards adjacent residential areas or areas of human activity, e.g., schools, parks.

FIRST AID

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

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have a 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 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 center 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 center 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 center or doctor for treatment advice.

For product information call 1-800-960-4318 or visit our website at <u>www.gowanco.com</u>. In case of emergency involving a major spill, leak or fire call Chemtrec[®] at 1-800-424-9300. For medical emergencies call 1-888-478-0798.

TOXICOLOGICAL INFORMATION

No specific antidote. Employ supportive care. Treatment should be based on judgment of the physician in response to reactions of the patient.

ENVIRONMENTAL PRECAUTIONS

TOXIC to aquatic organisms. Observe 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.

AGRICULTURAL CHEMICAL

Do not ship or store with food, feeds, drugs or clothing.

Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

STORAGE

Store product in original container only. To prevent contamination store this product away from food or feed.

DISPOSAL/DECONTAMINATION

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.

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).

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 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.

Booklet label

$ZING!^{TM}$ Fungicide

GROUP 22 M5 FUNGICIDE

AGRICULTURAL Suspension

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



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PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

Ground - Personal Protective Equipment (PPE):

Applicators:

- Groundboom equipment with an enclosed cab
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- Wear chemical-resistant gloves when leaving the cab for clean-up and repair.
- Mixers and Loaders (during mixing, loading, application, clean-up, and repair):
- Coveralls over long-sleeved shirt and long pants, shoes and socks
- Chemical-resistant gloves
- A respirator with a NIOSH-approved organic-vapour-removing cartridge with a pre-filter approved for pesticides OR a NIOSH-approved canister approved for pesticides.
- Chemical-resistant apron.

Aerial – Personal Protective Equipment (PPE):

Applicators:

- Wear a long-sleeved shirt, long pants, socks and shoes during application.
- Gloves are not required during application within a closed cockpit.

Field crew and the mixer/loaders:

- Mixers and loaders must use a closed system
- Coveralls over a long-sleeved shirt and long pants, shoes and socks
- Chemical-resistant gloves

USER SAFETY RECOMMENDATIONS Users should:

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Use good pesticide application practices and apply only when the potential for drift to non-target or sensitive areas is minimal. Take into consideration residential areas, areas of human activities, bodies of water, meteorological conditions, application equipment and sprayer settings used for application. Do not spray when the wind is blowing towards adjacent residential areas or areas of human activity, e.g., schools, parks.

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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.

AGRICULTURAL CHEMICAL

Do not ship or store with food, feeds, drugs or clothing.

Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

STORAGE

Store product in original container only, away from other pesticides and fertilizers. To prevent contamination store this product away from food or feed.

DISPOSAL/DECONTAMINATION

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.

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).

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 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.

DIRECTION FOR USE

GENERAL USE PRECAUTIONS

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.

READ ALL DIRECTIONS CAREFULLY BEFORE APPLYING. FAILURE TO FOLLOW LABEL INSTRUCTIONS MAY RESULT IN ERRATIC FUNGICIDE CONTROL OR CROP DAMAGE.

Use Rate Determination

Carefully read, understand, and follow label use rates and restrictions. Under low disease conditions, minimum label rates per application can be used while maximum label rates and the minimum interval may be used for severe or threatening disease conditions. For proper application, determine the number of hectares to be treated, the recommended label use rate and the water to be applied per hectare. Prepare only the amount of spray solution required to treat the measured area. Careful calibration of spray equipment is recommended prior to use.

Do not re-enter treated areas within 48 hours of application.

MIXING INSTRUCTIONS

Slowly place into spray tank as it is being filled or thoroughly premix in a nurse tank for concentrate or aircraft sprayers. Add other co-applied fungicides after ZING! Fungicide has been placed into suspension.

Dosage rates on this label indicate litres per hectare of Zing!, unless otherwise stated. Under conditions favoring disease development the highest rate specified and shortest application interval should be used.

Tank Mixing

This product may be tank mixed with a fertilizer, a supplement, or with registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact Gowan Company at 1-800-960-4318 for information before applying any tank mix that is not specifically recommended on this label.

APPLICATION DIRECTIONS

GROUND Application Directions for Use

Thorough coverage foliar sprays generally result in optimum disease control. To achieve good coverage use proper spray pressure, water volume per hectare, nozzles (generally hollowcone), disc (generally D5 to D7), nozzle spacing, and tractor speed. Consult spray nozzle accessory catalogues for specific information on proper equipment calibration.

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 S572.1) medium classification. Boom height must be 60 cm or less above the crop or ground

AERIAL Application Directions for Use

Aerial application: 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 S572.1) medium classification. Reduce drift caused by turbulent wingtip vortices. Nozzle distribution along the spray boom length MUST NOT exceed 65% of the wing- or rotorspan.

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.

Product Specific Precautions

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-800-960-4318 or obtain technical advice from the distributor or your provincial agricultural representative. Application of this product must meet and/or conform to the following:

Volume: Apply the recommended spray volume rate of 45 to 90 liters of water per hectare. Use 90 liters under high disease pressure to provide better crop coverage.

Nozzle selection: Hollow cone brass nozzles with a D-series orifice disc and core (whirlplate) are recommended. Nozzles should point straight down or slightly backward.

Swath width: For most field and vegetable crops, swaths just beyond the wingspan of 11 to 12 meters for light aircraft and up to 14 meters for heavier aircraft are suggested. Optimum swath for helicopters is usually 1.5 to 3 meters beyond normal boom length.

Altitude: For most crops, the spray boom should be positioned 1.5 to 3 meters above the crop canopy.

Flagging: Swaths should be marked at the end of the field with permanent flags. Do not use human flaggers. Swaths should be measured accurately with a chain or other device except when rows can be accurately counted.

BUFFER ZONES

Vegetative Filter Strips

A Vegetative Filter Strip (VFS) of at least 10 metres wide must be constructed and maintained. The VFS is required between the field edge and adjacent, downhill aquatic habitats to reduce risk to aquatic organisms from run-off. Aquatic habitats include, but are not limited to, lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, and estuaries.

The VFS is to be composed of grasses and may also include shrubs, trees, or other vegetation. Additional guidance can be found on the PMRA Environmental Risk Mitigation webpages.

Both VFS and spray drift buffer zones must be observed.

Spray Drift Buffer Zones

Spray drift buffer zones are to protect terrestrial and aquatic habitats from spray drift. Spray drift buffer zones are a separate requirement from VFS which are required to mitigate risks from run-off.

Spray Buffer Zones:

A spray buffer zone is NOT required for uses with hand-held application equipment permitted on this label.

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..

	Crop		Buffer Zones (metres) Required for the Protection of:				
Method of			Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial Habitats
application			Less than	Greater than	Less than	Greater than	
			1 m	1 m	1 m	1 m	
Field sprayer	Potato		4	1	0	0	0
Aerial	Potato	Fixed wing	200	10	0	0	0
		Rotary wing	125	5	0	0	0

When tank mixes are permitted, 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. The spray buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Spray Buffer Zone Calculator on the Pesticides portion of the Canada.ca website. This tool cannot be used to reduce the vegetative filter strips.

CROP, DISEASE AND APPLICATION RATES

*Application of any product containing chlorothalonil cannot be made more frequently than the Retreatment Intervals stated below.

Crop	Diseases Controlled	Rate of ZING! Fungicide Per Application Litres/Hectare	Remarks (Also Refer to Directions for Use)	Restrictions
Potatoes	Botrytis vine rot, <i>B. cinerea</i> Early blight, <i>Alternaria solani</i> Late blight, <i>Phytophthora</i> <i>infestans</i>	2.4	Begin applications at the first sign of disease or when blight is reported in the area. Apply every 7 days under high disease pressure when either disease is present or environmental conditions favour continued disease development. For aerial spray, apply in 45- 90L of water per hectare.	Maximum of 3 applications per season with a 7 day pre- harvest interval (PHI) and a 7 day retreatment interval. Aerial and ground application only. A 30 day plantback interval (PBI) is required for leafy vegetables and root and tuber vegetables. For all other crops not included on the
	2.19	Apply every 7 days under low disease pressure and environmental conditions unfavourable for disease development. For aerial spray, apply in 45- 90L of water per hectare.	iapei, the PBI should be 140 days.	

REENTRY INTERVAL

Сгор	Activity	REI (days)
Potato (seed)	Handset irrigation	23
	Roguing	19
	Scouting	3
	All other activities	0.5
Potato (table)	Handset irrigation	23
	Scouting	3
	All other activities	0.5

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, please note that ZING Fungicide contains both a Group 22 and Group M5 fungicide. Any fungal population may contain individuals naturally resistant to ZING! Fungicide and other Group 22 or Group M5 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 ZING Fungicide or other Group 22 or Group M5 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.

- 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 Gowan Company if reduced sensitivity of the pathogen to ZING 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 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 Gowan Company at 1-800-960-4318 or at www.gowanco.com.

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