

GROUP **M5** FUNGICIDE

NET CONTENTS: 1-1000 L

**Echo NP Fungicide**  
Suspension

Commercial



WARNING POISON  
POTENTIAL SKIN SENSITIZER

READ THE LABEL BEFORE USING

ACTIVE INGREDIENT: Chlorothalonil 720 g/L

Contains 1,2 benzisothiazolin-3-one at 0.0097% as a preservative

REGISTRATION NO. 33479 PEST CONTROL PRODUCTS ACT

Sipcam Agro USA, Inc.  
2525 Meridian Parkway, Suite 350  
Durham, NC 27713 USA  
(919) 226 1195

Distributed by: United Agri Products Canada Inc.  
789 Donnybrook Drive  
Dorchester, ON, N0L 1G5  
1-800-265-4624

**KEEP OUT OF REACH OF CHILDREN**

**FIRST AID**

IF INHALED	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
IF IN EYES	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
IF SWALLOWED	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.	
EMERGENCY TELEPHONE NUMBER	
All hours: 1-800-327-8633 (FASTMED) ONLY for health and environmental information.	

**TOXICOLOGICAL INFORMATION**

NOTES TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Persons having an allergic reaction respond to treatment with antihistamines or steroid creams and/or systemic steroids.

## **PRECAUTIONS**

### **KEEP OUT OF REACH OF CHILDREN**

**WARNING:** Causes severe eye damage. DO NOT get in eyes. Avoid contact with skin or clothing. Wash exposed areas of skin with soap and warm water after handling or using. DO NOT take internally. Avoid breathing spray mist. Exposure to this product may produce temporary side effects, characterized by irritation and redness of the eyes, mild bronchial irritation and redness or rash on exposed skin areas. DO NOT store near feed or foodstuffs. Store in a cool place.

Apply only to areas specified on the label. May be fatal if inhaled. Potential skin sensitizer.

Mixer and loaders must not handle more than 340 kg a.i. in one day.

Wear coveralls over long pants, a long-sleeve shirt, goggles or a face shield, apron and chemical resistant gloves during mixing, loading, clean-up and repair activities. Wear long pants, a long sleeve-shirt and chemical resistant gloves during application.

DO NOT re-enter treated areas within 48 hours. If required, individuals may re-enter treated areas within 48 hours for short-term tasks not involving hand labour only if at least 4 hours has passed since application, and long pants, long-sleeved shirt, hat and chemical-resistant gloves are worn.

## **ENVIRONMENTAL HAZARDS**

TOXIC to aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE. Runoff from treated areas may be hazardous to aquatic organisms in neighbouring areas. To reduce runoff from treated areas into aquatic habitats avoid applications to areas with a moderate to steep slope, compacted soil, or clay. DO NOT apply directly to water. Avoid application when heavy rain is forecast.

Keep out of lakes, streams, and ponds. DO NOT contaminate water by cleaning of equipment, or disposal of wastes. DO NOT apply where runoff is likely to occur. DO NOT apply when weather conditions favour drift from areas being treated.

## **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.

### 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 returnable containers

#### Disposal of Container:

DO NOT reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

### For containers that can be refilled for the use by the distributor/dealer

#### Disposal of Container:

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be filled by the distributor/dealer with the same product. DO NOT reuse this container for any other purpose.

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

### **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.

### **PRODUCT INFORMATION**

ECHO NP Fungicide is an excellent fungicide when used according to label directions for control of a broad spectrum of plant diseases. This product can be used effectively in dilute or concentrate sprays. Thorough uniform coverage is essential for disease control.

DO NOT combine ECHO NP Fungicide in the spray tank with pesticides, surfactants or fertilizers unless your prior use has shown the combination physically compatible and non-injurious under your conditions of use. Note: Slowly invert container several times to assure uniform mixture.

The required amount of ECHO NP Fungicide should be added slowly into the spray tank during filling. With concentrate sprays, premix the required amount of this product in a clean container and add to the spray tank as it is being filled. Keep agitator running when filling spray tank and during spray operations.

### **DIRECTIONS FOR USE**

Dosage rates on this label indicate litres of ECHO NP Fungicide per hectare unless otherwise stated. Applications should be made in sufficient water to obtain adequate coverage of foliage and stems. Volume of water to be used will vary with crop and amount of plant growth. Spray volume usually will range from 225 - 1,600 litres per hectare for dilute sprays and 50 - 100 litres per hectare for concentrate ground sprays and aircraft applications. Both groundboom and aircraft methods of application are recommended unless specific directions are given for a crop.

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.

DO NOT allow effluent or runoff from greenhouses and mushroom houses containing this product to enter lakes, streams, ponds or other bodies of water.

#### 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 runoff.

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: **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. 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.

Spot treatments using hand-held equipment **DO NOT** require a buffer zone.

The spray drift 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.

Buffer Zone Table

	Crop		Buffer Zones (metres) Required for the Protection of:			
			Freshwater Habitat 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	wheat, evening primrose		2	1	2	1
	carrots, sweet corn, parsnip, dry pea		3	1	3	1
	celery, chickpeas, lentils, strawberry		3	1	3	2
	cole crops, cucurbit vegetables, ginseng, onion, cabbage, tomato		4	1	4	2
	blueberries (highbush), conifers - outdoor		5	1	5	3
	cranberry		10	1	10	4
Aerial	evening primrose	Fixed wing	65	4	65	20
		Rotary wing	50	1	50	15
	wheat	Fixed wing	75	5	75	20
		Rotary wing	55	2	55	15
	parsnip	Fixed wing	90	5	90	20
		Rotary wing	60	3	60	20
	dry pea	Fixed wing	95	5	95	25
		Rotary wing	70	4	70	20
	carrot	Fixed wing	100	5	100	30
		Rotary wing	75	5	75	20
	lentils, celery	Fixed wing	175	10	175	40
		Rotary wing	100	5	100	30
cole crops,	Fixed wing	200	10	200	55	

	cucurbit, onion, tomato	Rotary wing	125	10	125	40
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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.

The spray-drift buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the Pest Management Regulatory Agency web site. This tool cannot be used to reduce the vegetative filter strips.

The use of this and any product containing chlorothalonil is prohibited on greenhouse-grown food crops unless clearly specified on the label.

**DO NOT APPLY THIS PRODUCT WITHIN 10 DAYS BEFORE OR AFTER AN OIL APPLICATION AS THE PRESENCE OF OIL MAY RESULT IN BURNING TO FLOWERS AND LEAF TISSUE.**

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.

**Guidance for Groundboom**

If handling more than [340 kg a.i.] in one day, mixers and loaders must use a closed system. Wear coveralls over a long-sleeved shirt and long pants, chemical resistant gloves, socks and shoes during mixing, loading, clean-up, and repair activities. Wear a long sleeved-shirt, long pants, chemical resistant gloves, socks and shoes during application. Gloves are not required during application within a closed cab.

**Guidance for Aerial Application**

Mixers and loaders must use a closed system.

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 making devices.

Apply only when meteorological conditions at the treatment site allow for complete and even 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.

DO NOT apply to any body of water. Avoid drifting of spray onto any body of water or other non- target areas. Specific buffer zones should be observed.

Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Do not apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat. Refer to ENVIRONMENTAL HAZARDS for additional details.

Aerial applicators: Wear a long-sleeved shirt, long pants, socks and shoes during application. Gloves are not required during application within a closed cockpit. Do not allow the pilot to mix chemicals to be loaded onto the aircraft. It is desirable that the pilot has communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders: Wear coveralls over a long-sleeved shirt and long pants, chemical resistant gloves, socks and shoes 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. Refer to PRECAUTIONS for additional details.

#### Guidance for Greenhouse Applications

Wear coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up, and repair.

Mixers/loaders/applicators in greenhouses and mushroom houses must wear a respirator with a NIOSH-approved organic vapour-removing cartridge with a prefilter approved for pesticides OR a NIOSH-approved canister approved for pesticides.

### **APPLICATION AND CALIBRATION TECHNIQUES FOR SPRINKLER IRRIGATION SOLID SET IRRIGATION EQUIPMENT:**

Wear coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, socks and shoes during mixing, loading, clean-up, and repair.

Adjust sprinkler nozzles to prevent direct spray or drift into non-target areas. Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents within desired time periods. Mix desired amount of ECHO NP Fungicide for acreage to be covered into quantity of water used during calibration. Operate entire system at normal pressures recommended by the manufacturer of injection equipment for amount of time established during calibration.

ECHO NP Fungicide can be injected at the beginning or end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed (e.g. as indicated by dye) and continue to operate irrigation system until this product has been cleared from the last sprinkler head.

DO NOT operate irrigation system without safety valves or other devices to prevent back-siphoning of this product into water source. The tank containing this product should be connected to the discharge side of irrigation pump or other pressurized equipment attached to irrigation line. Never inject pesticides into the intake line or the suction side of pump. Irrigation water treated with this product should be maintained on the treated area until the water is absorbed by the soil.

Do not apply this product through any other type of irrigation system.

Do not apply when wind speed causes any non-uniform distribution and/or favours drift beyond the area intended for treatment.

Do not apply by chemigation if the area to be treated is within 100 metres of a residential area or park.

#### Fungicide Resistance Management

For resistance management, this product contains a Group M5 fungicide. Any fungal population may contain individuals naturally resistant to ECHO NP Fungicide and other 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 ECHO NP Fungicide or other Group M5 fungicides with different groups that control the same pathogens.
- Use tank mixtures with fungicide/bactericides from a different group that is effective on the target pathogen when such use is permitted.
- Avoid application of more than the maximum number listed in the label and consecutive

sprays of ECHO NP Fungicide or other fungicides in the same group in a season.

- 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/bactericide applications.
- Monitor treated fungal populations for sign of resistance development. Notify Sipcam Agro USA, Inc. if reduced sensitivity of the pathogen to ECHO NP 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.

This product is effective for strategic use in programs that attempt to minimize disease resistance to fungicides. Some other fungicides which are at risk from disease resistance exhibit a single-site mode of fungicidal action. This product, with a multi-site mode of action, may be used to delay or prevent the development of resistance to single-site fungicides.

Consult with your federal or state Cooperative Extension Service representatives for guidance on the proper use of this product in programs which seek to minimize the occurrence of disease resistance to other fungicides.

For further information and to report suspected resistance, contact company representatives at: (519) 268 5906 or Fax (519) 268 8013.



## **VEGETABLE and FIELD CROPS**

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

<b>Crop</b>	<b>PHI (days)</b>	<b>Diseases</b>	<b>Liters of Echo NP Per Hectare (kg ai/ha)</b>	<b>Application Directions</b>
Broccoli, Brussels Sprouts, Cabbage, Cauliflower	7	Alternaria leaf spot ( <i>Alternaria alternata</i> ) Downy mildew ( <i>Pseudoperonospora cubensis</i> )	1.7 – 3.3 (1.2 - 2.4)	Make applications after transplants are set in the field (or shortly after emergence of field seeded crop) or when conditions favour disease development.  For cabbage, make a second application 7-10 days after the first application to maintain disease control.
Broccoli, Brussels sprouts, Cauliflower Restrictions: <ul style="list-style-type: none"> <li>• Maximum number of applications/year: 1</li> <li>• Reentry Interval (days):               <ul style="list-style-type: none"> <li>• 5 (Topping (Brussels sprouts))</li> <li>• 5 (Scouting)</li> <li>• 0.5 (All other activities)</li> </ul> </li> </ul> Cabbage Restrictions: <ul style="list-style-type: none"> <li>• Maximum number of applications/year: 2</li> <li>• Reentry Interval (days):               <ul style="list-style-type: none"> <li>• 2 (Scouting, Thinning)</li> <li>• 1 (Hand weeding)</li> <li>• 0.5 (All other activities)</li> </ul> </li> </ul>				
Carrot	1	Early blight ( <i>Cercospora carotae</i> ) Late blight ( <i>Alternaria dauci</i> )	1.7 – 2.2 (1.2 - 1.6)	Start applications when disease threatens and repeat at 7- to 10-day intervals to maintain control.
Carrot Restrictions: <ul style="list-style-type: none"> <li>• Maximum number of applications/year: 7</li> <li>• Reentry Interval (days):               <ul style="list-style-type: none"> <li>• 22 (Hand harvesting)</li> <li>• 7 (Scouting)</li> <li>• 0.5 (All other activities)</li> </ul> </li> </ul>				

Crop	PHI (days)	Diseases	Liters of Echo NP Per Hectare (kg ai/ha)	Application Directions
Celery, field	7	Early blight ( <i>Cercospora apii</i> ) Late blight ( <i>Septoria apicola</i> )	1.1 – 1.7 (0.8 - 1.2) 3- to 5-day schedule -- OR -- 1.7 – 2.77 (1.2 - 2.0) 8- to 10-day schedule	Start applications when transplants are set in the field. Apply this product in sufficient water to obtain adequate coverage.
Celery, seedbeds (greenhouse)	N/A	Early blight ( <i>Cercospora apii</i> ) Late blight ( <i>Septoria apicola</i> )	1.4 – 1.9 (1.0 - 1.4)	For control in celery seedbeds, use of this product per 1000 litres of water and apply 1,400 litres per hectare. Start application shortly after crop emergence. Use the higher rate under severe disease conditions.
<p>Celery Restrictions:</p> <ul style="list-style-type: none"> <li>• Maximum number of applications/year: <ul style="list-style-type: none"> <li>• 2 (field)</li> <li>• 1 (greenhouse seedbeds)</li> </ul> </li> <li>• Reentry Interval (days): <ul style="list-style-type: none"> <li>• 0.5 (All activities) (field and greenhouse seedbeds)</li> </ul> </li> </ul>				
Chickpea	48	Ascochyta blight ( <i>A. phaseolorum</i> )	2.1 – 2.77 (1.5 - 2.0) 1 <sup>st</sup> application  1.4 – 2.1 (1.0 - 1.5) 2 <sup>nd</sup> application	Make the first application at very early flowering and a second application 10 days later. Apply only with ground application equipment in 220 litres of water per hectare.
<p>Chickpea Restrictions:</p> <ul style="list-style-type: none"> <li>• Maximum number of applications/year: 2</li> <li>• Reentry Interval (days): <ul style="list-style-type: none"> <li>• 2 (Scouting)</li> <li>• 0.5 (All other activities)</li> </ul> </li> <li>• Apply only with ground application equipment.</li> <li>• <b>DO NOT apply using aerial application equipment.</b></li> </ul>				

Crop	PHI (days)	Diseases	Liters of Echo NP Per Hectare (kg ai/ha)	Application Directions
Cucurbit vegetables (Cantaloupe, Cucumber, Muskmelon, Honeydew melon, squash, pumpkin, watermelon)	1	Anthracnose ( <i>Colletotrichum spp.</i> ) Powdery mildew ( <i>Podosphaera xanthii syn. Sphaerotheca fuliginea</i> ) Scab ( <i>Cladosporium cucumerinum</i> )	3.3 (2.4)  2.2 (1.6) for Anthracnose control on watermelon, squash and pumpkin	Begin applications when plants are in first true leaf stage or when conditions are favourable for disease development. Make a second application 7 days after the first application.
<p>Cucurbit vegetables Restrictions:</p> <ul style="list-style-type: none"> <li>• Maximum number of applications/year: 2</li> <li>• Reentry Interval (days): <ul style="list-style-type: none"> <li>• 0.5 (All activities)</li> </ul> </li> <li>• DO NOT apply via sprinkler irrigation system.</li> </ul>				
Dry peas	32	Ascochyta blight ( <i>Mycosphaella pinodes</i> )	1.4 – 2.1 (1.0 – 1.5)	Apply at early flowering. Make a second application at early pod set, around 10 days after the first. Always apply the higher rate when conditions are favourable for disease.
<p>Dry peas Restrictions:</p> <ul style="list-style-type: none"> <li>• Maximum number of applications/year: 2</li> <li>• Reentry Interval (days): <ul style="list-style-type: none"> <li>• 1 (Scouting)</li> <li>• 0.5 (All activities)</li> </ul> </li> <li>• DO NOT feed the hay from treated crop to livestock.</li> <li>• DO NOT allow grazing of treated crop</li> </ul>				

Crop	PHI (days)	Diseases	Liters of Echo NP Per Hectare (kg ai/ha)	Application Directions
Lentils	48	Anthracnose ( <i>Colletotrichum gleosporioides</i> ) Ascochyta blight ( <i>Ascochyta pisi</i> )	1.4 – 2.8 (1.0 – 2.0)	Apply at pre-flowering prior to row closure, then make a second application 10 to 14 days after the first application (during bloom period).
<p>Lentils Restrictions:</p> <ul style="list-style-type: none"> <li>• Maximum number of applications/year: 2</li> <li>• Reentry Interval (days): <ul style="list-style-type: none"> <li>• 3 (Scouting)</li> <li>• 0.5 (All activities)</li> </ul> </li> <li>• Do not apply this product in combination with POAST® herbicide and MERGE® surfactant or within 48 hours of the application of POAST and MERGE.</li> <li>• Do not feed the straw from treated crop to livestock.</li> <li>• Do not allow grazing of treated crop.</li> </ul>				
Mushroom	7	Verticillium brown spot/dry bubble ( <i>Verticillium fungicola</i> )	17.6 (12.7)	Individuals applying this product in mushroom facilities should wear a full-face respirator during all activities. In addition, if re-entry into mushroom facilities is required within 12 hours after treatment, wear a full-face respirator. Apply 175 millilitres per 100 square metres immediately after casing or in the casing mix, and 90 millilitres per 100 square metres at pinning, in 100 to 130 litres of water.
<p>Mushrooms Restrictions:</p> <ul style="list-style-type: none"> <li>• Maximum number of applications/year: 1</li> <li>• Reentry Interval (days): <ul style="list-style-type: none"> <li>• 0.5 (All activities)</li> </ul> </li> </ul>				

Crop	PHI (days)	Diseases	Liters of Echo NP Per Hectare (kg ai/ha)	Application Directions
Onion (dry bulb and green bunching)	7 (dry bulb) 14 (green bunching)	Botrytis leaf blight ( <i>Botrytis</i> spp.)	1.7 – 3.3 (1.2 – 2.4)	Start applications when disease threatens and make a second application 7-10 days later.
<p>Onions (dry bulb and green bunching) Restrictions:</p> <ul style="list-style-type: none"> <li>• Maximum number of applications/year: 2</li> <li>• Reentry Interval (days): <ul style="list-style-type: none"> <li>• 6 (Hand weeding)</li> <li>• 1 (Scouting)</li> <li>• 0.5 (All activities)</li> </ul> </li> </ul>				
Parsnip	7	Root canker ( <i>Phoma</i> spp.)	1.9 (1.4)	Start applications in mid-August and repeat at 7-10 day intervals.
<p>Parsnips Restrictions:</p> <ul style="list-style-type: none"> <li>• Maximum number of applications per year: 7</li> <li>• Reentry Interval (days): <ul style="list-style-type: none"> <li>• 21 (Hand harvesting)</li> <li>• 5 (Scouting)</li> <li>• 0.5 (All other activities)</li> </ul> </li> </ul>				

Crop	PHI (days)	Diseases	Liters of Echo NP Per Hectare (kg ai/ha)	Application Directions
Sweet Corn	14	Common rust ( <i>Puccinia spp.</i> )	2.2 (1.6)	Apply when symptoms are first noticed and repeat again 10 to 14 days later.
<p>Sweet Corn Restrictions:</p> <ul style="list-style-type: none"> <li>• Maximum number of applications per year: 2</li> <li>• Reentry Interval (days): <ul style="list-style-type: none"> <li>18 (Hand harvesting)</li> <li>14 (Mechanical harvesting)</li> <li>1 (Scouting)</li> <li>0.5 (All other activities)</li> </ul> </li> </ul>				

Crop	PHI (days)	Diseases	Liters of Echo NP Per Hectare (kg ai/ha)	Application Directions
Tomato (Including processing tomatoes)	1 (Not for Processing) 30 (Processing)	Early blight ( <i>Alternaria solani</i> )	1.7 – 2.8 (1.2 – 2.0)	Begin applications when disease threatens, and spray on an 8- to 10-day schedule at the lower rate (1.7 L or 1.2 kg ai/ha), or a 14-day schedule at the higher rate (2.8 L or 2.0 kg ai/ha).
		Late blight ( <i>Phytophthora infestans</i> ) Septoria leaf spot ( <i>Septoria lycopersici</i> ) Anthracnose ( <i>Colletotrichum spp.</i> )		Processing tomatoes – This product can be tank mixed with LEXONE® herbicide. Follow the above directions for use for disease control and use LEXONE at 150 grams active ingredient per hectare for weed control. Refer to the LEXONE label for proper rates and use. When using this tank mix combination.
		Botrytis gray mold ( <i>Botrytis cinerea</i> )	3.3 2.4)	Apply on a 14-day schedule

**Tomato Restrictions:**

**Not for Processing:**

- Maximum number of applications per year: 2
- Reentry Interval (days):  
0.5 (All other activities)

**For Processing:**

- Maximum number of applications per year: 9 (2 applications at 3.3 L or 2.4 kg ai/ha and 7 applications at 1.7 L or 1.2 kg ai/ha)
- Reentry Interval (days):  
7 (Scouting)  
0.5 (All other activities)
- Do not hand harvest processing tomatoes.

Crop	PHI (days)	Diseases	Liters of Echo NP Per Hectare (kg ai/ha)	Application Directions
Wheat	30	Septoria leafspot ( <i>Mycosphaerella graminicola</i> ) Septoria glume blotch ( <i>Parastagonospora nodorum</i> ) Tan spot ( <i>Pyrenophora tritici-repentis</i> )	1.0 – 1.8 (0.7 – 1.3)	Apply at Zadoks growth stage 37 (flag leaf emergence) and repeat 10-14 days later at growth stage 51-55 (visible ear).
		Fusarium head blight (scab) ( <i>Fusarium graminearum</i> ) suppression	1.4-1.8-7L (1.0 – 1.3)	Apply at growth stage 61-65 (early flowering), with a 10 day retreatment interval. For best results, this application must be made prior to conditions favouring infection, i.e. before flowering has started in the majority of tillers and
<b>Wheat Restrictions:</b> <ul style="list-style-type: none"> <li>• Maximum number of applications per year: 2</li> <li>• Reentry Interval (days): 0.5 (All activities)</li> <li>• DO NOT feed the straw from treated crop to livestock.</li> <li>• DO NOT allow grazing of treated crop.</li> </ul>				

## **FRUIT CROPS**

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

Crop	PHI (days)	Diseases	Liters of Echo NP Per Hectare (kg ai/ha)	Application Directions
Blueberry (highbush)	54	Anthrachnose fruit rot ( <i>Colletotrichum gloeosporioides</i> ) Alternaria fruit rot (Alternaria spp.) Phomopsis canker ( <i>P. vaccinii</i> )	5.0 (3.6)	Make applications at green tip, pink bud or petal fall using at least a 7-day retreatment interval. After petal fall, a protective schedule using a different registered product may be necessary to ensure continued control of fruit rot.
<b>Blueberry Restrictions:</b> <ul style="list-style-type: none"> <li>• Maximum number of applications per year: 2</li> <li>• Reentry Interval (days): 3 (Handset irrigation) 0.5 (All other activities)</li> </ul>				



Crop	PHI (days)	Diseases	Liters of Echo NP Per Hectare (kg ai/ha)	Application Directions
Cherry (sweet and sour)  Apply in 500-1000 litres of water per hectare.	40	Blossom blight ( <i>Monilinia laxa</i> ) Cherry leaf spot ( <i>Blumeriella jaapii</i> ) Black knot ( <i>Apiosporina morbosa</i> )	3.5 –6.3 (2.5-4.5)	<b>Pre-harvest:</b> Apply 1-2 applications from pink through shuck split at 10 days apart. <b>DO NOT</b> make more than 2 pre-harvest applications per season. <b>DO NOT</b> apply within 40 days of harvest.
	N/A	Cherry leaf spot ( <i>Blumeriella jaapii</i> ) Black knot ( <i>Apiosporina morbosa</i> )	4.2 –6.3 (3.0-4.5)	<b>Post-harvest:</b> Apply once to foliage 1-7 days after fruit is removed. <b>DO NOT</b> make more than 1 post-harvest application per season.
Cherry Restrictions: Pre-Harvest <ul style="list-style-type: none"> <li>• Maximum number of applications per year: 2 (Spring)</li> <li>• Reentry Interval (days): 8 (Thinning) 0.5 (All other activities)</li> <li>• <b>DO NOT</b> apply after shuck split to avoid fruit injury.</li> </ul> Post-Harvest <ul style="list-style-type: none"> <li>• Maximum number of applications per year: 1</li> </ul>				
Cranberry	50	Fruit rot ( <i>Monilinia oxycocci</i> )	4.7 – 8.1 (3.4 - 5.8)	Apply once per year as needed. <b>DO NOT</b> make more than one application per year.
		Twig leaf blight and upright dieback ( <i>Diaporthe vaccinia</i> )		Use the higher rate under severe conditions. <b>DO NOT</b> apply within 50 days of harvest.
Cranberry Restrictions: <ul style="list-style-type: none"> <li>• Maximum number of applications per year: 1</li> <li>• Reentry Interval (days): 5 (Scouting) 0.5 (All other activities)</li> <li>• <b>DO NOT</b> apply this product to fields when flooded or allow release of irrigation water from bogs for at least 3 days following application.</li> <li>• This product may be applied through sprinkler irrigation equipment. Use 3000 litres of water per hectare through solid set systems only. See application and calibration techniques for sprinkler irrigation under Directions for Use.</li> <li>• <b>DO NOT apply using aerial application equipment.</b></li> </ul>				

Crop	PHI (days)	Diseases	Liters of Echo NP Per Hectare (kg ai/ha)	Application Directions
Peach Nectarine	60	Blossom blight ( <i>Monilinia spp.</i> )	3.5 – 6.3 (2.5 – 4.5)	Apply 1-2 applications from pink through shuck period. Apply in 500-1000 litres of water per hectare. <b>DO NOT</b> apply within 60 days of harvest.
		Peach Leaf curl ( <i>Blumeriella jaapii</i> )	3.5 – 4.9 (2.5 – 3.5)	Make one application per year as a fall dormant spray at 75-100% leaf drop or in early spring before bud swell/bud break. Apply in at least 1000 litres of water per hectare. <b>DO NOT</b> make more than 3 applications per year including a dormant spray.
<p>Peach and Nectarine Restrictions:</p> <ul style="list-style-type: none"> <li>• Maximum number of applications per year: 3 (2 (Spring) + 1 (Dormant))</li> <li>• Reentry Interval (days): 11 (Thinning) 0.5 (All other activities)</li> <li>• DO NOT apply after shuck split to avoid fruit injury.</li> <li>• DO NOT APPLY THIS PRODUCT WITHIN 10 DAYS OF AN OIL APPLICATION AS IT MAY CAUSE BURNING TO FLOWERS AND LEAF TISSUE.</li> </ul>				
Strawberry	30	Botrytis fruit rot ( <i>Botrytis spp.</i> )	2.5 (1.8)	Apply once in the fall. Apply two pre-bloom sprays the following spring, one when new growth appears and again 10-12 days later. <b>DO NOT</b> make more than three applications per year. DO NOT apply within 30 days of harvest.
<p>Strawberry Restrictions:</p> <ul style="list-style-type: none"> <li>• Maximum number of applications per year: 3 (2 (Spring) + 1 (Post-harvest))</li> <li>• Reentry Interval (days): 0.5 (All activities)</li> <li>• Use ground application equipment only.</li> <li>• <b>DO NOT apply using aerial application equipment.</b> DO NOT apply via sprinkler irrigation system.</li> </ul>				

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

The DIRECTIONS FOR USE for this product for Evening Primrose and Ginseng were developed by persons other than Sipcam Agro USA, Inc. and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. Sipcam Agro USA, Inc. itself makes no representation or warranty with respect to performance (efficacy) and/or crop tolerance (phytotoxicity) claims for this product when used on Evening Primrose and Ginseng. Accordingly, the Buyer and User assume all risks related to performance and crop tolerance arising, and agree to hold Sipcam Agro USA, Inc. harmless from any claims based on efficacy and/or phytotoxicity in connection with the use described for Evening Primrose and Ginseng

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

Crop	PHI (days)	Diseases	Liters of Echo NP Per Hectare (kg ai/ha)	Application Directions
Evening primrose	N/A	Blight and dieback ( <i>Botrytis cinerea</i> )	1.6 (1.2)	Fall applications only. Apply to direct seeded fields after emergence when disease symptoms appear.  Repeat once after 28 days or after 14 days if the conditions favour disease.
Evening Primrose Restrictions: <ul style="list-style-type: none"> <li>• Maximum number of applications per year: 2</li> <li>• Reentry Interval (days): 0.5 (All activities)</li> </ul>				
Ginseng	14	Alternaria blight ( <i>Alternaria panax</i> ) Grey mold ( <i>Botrytis cinerea</i> ) Leaf spot ( <i>Phytophthora cactorum</i> )	1.7 –3.3 (1.2-2.4)	Start applications when disease threatens and make a second application 7-10 days later. A third application may be made in the fall. <b>DO NOT</b> make more than three applications per year. <b>DO NOT</b> apply within 14 days of harvest.
Ginseng Restrictions: <ul style="list-style-type: none"> <li>• Maximum number of applications per year: 3 (2 + 1 (Fall))</li> <li>• Reentry Interval (days): 0.5 (All activities)</li> <li>• Do not feed treated ginseng (roots or foliage) to livestock.</li> </ul>				

Crop	PHI (days)	Diseases	Liters of Echo NP Per Hectare (kg ai/ha)	Application Directions
Blueberry (lowbush)	54	Phomopsis canker (Phomopsis vaccinii). Suppression Only: Leaf spot diseases including: Septoria leaf spot (Septoria sp.) Rust (Naohidemyces vaccinii) Valdensinia leaf spot (Valdensinia heterodoxa)	5.0 (3.6)	Make the first application in early to mid-June of the sprout year. Follow with a second application in early August, at least 42 days apart. Application should be based on the level of disease pressure in the previous year. Apply this product in 200 - 950 L/ha of water.
Blueberry (lowbush) Restrictions: <ul style="list-style-type: none"> <li>• Maximum number of applications per year: 2</li> <li>• Reentry Interval (days): 0.5 (All activities)</li> <li>• <b>DO NOT apply using aerial application equipment.</b></li> </ul>				

**CONIFERS (outdoor (e.g., cedar, Douglas-fir, cypresses, fir, junipers, pine, spruce); including Christmas trees)**

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

Diseases	Liters of Echo NP Per Hectare (kg ai/ha)	Application Directions
Scleroderris canker (pines) ( <i>Gremeniella abietina</i> ) Swiss needlecast ( <i>Phaeocryptopus gaeumannii</i> ) Rhabdocline needlecast (Douglas-fir) ( <i>Rhabdocline spp.</i> )	1.7 – 3.3 (1.2 – 2.4)	Apply in 100 to 1000 litres of water per hectare. Make first application in spring when new shoot growth is 1 to 2 cm in length. Make an additional application 3 to 4 weeks after first application.
Sirococcus Tip Blight ( <i>Sirococcus conigenus</i> )	2.5 – 4.2 (1.8 – 3.0)	
Rhizosphaera needlecast (spruces) ( <i>Rhizosphaera spp.</i> ) Scirrhia brown spot (pines) ( <i>Mycosphaerella dearnessii</i> )	6.6 (4.8)	
Lophodermium needlecast ( <i>Lophodermium spp.</i> )	1.7 – 3.3 (1.2 – 2.4)	Apply in 100 to 1000 litres of water per hectare. Begin applications in mid-July to early August before infection occurs. Make an additional application 3 to 4 weeks after first application. For use in nursery beds, apply 3.3 L/ha on a 3- week schedule.
<p>Conifer (outdoor) Restrictions:</p> <ul style="list-style-type: none"> <li>• Maximum number of applications per year: 2</li> <li>• Reentry Interval (days): <ul style="list-style-type: none"> <li>15 (Harvesting (seedling production))</li> <li>11 (Handset irrigation)</li> <li>7 (Harvest (seed cone), Christmas Trees)</li> <li>1 (Scouting, shaping)</li> <li>0.5 (All other activities)</li> </ul> </li> </ul>		

**CONIFERS (Nursery beds (greenhouse))**

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

Diseases	Liters of Echo NP Per Hectare (kg ai/ha)	Application Directions
Lophodermium needlecast ( <i>Lophodermium spp.</i> ) Scleroderris canker (pines) ( <i>Gremeniella abietina</i> ) Swiss needlecast ( <i>Phaeocryptopus gaeumannii</i> ) Rhabdocline needlecast (Douglas-fir) ( <i>Rhabdocline spp.</i> )	1.7 (1.2)	
Botrytis seedling blight ( <i>Botrytis spp.</i> ) Phoma twig blight ( <i>Phoma spp.</i> )		Apply in 100 to 1000 litres of water per hectare. Make application when seedlings are 10 cm tall and when cool, moist conditions favor disease development.
<b>Conifer (Nursery beds) Restrictions:</b> <ul style="list-style-type: none"><li>• Maximum number of applications per year: 1</li><li>• Reentry Interval (days):</li><li>• 0.5 (All activities)</li></ul>		

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