

2021-4389  
2021-09-17

GROUP	23	ACARICIDE
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**SPIRO SC MITICIDE  
SUSPENSION**

For control of listed mites in pome fruit, stone fruit, tree nuts (crop group 14), grapes, hops, and blueberry bud mite on highbush and lowbush blueberries

AGRICULTURAL

ACTIVE INGREDIENT: Spirodiclofen ..... 253 g/L

Contains 5-chloro-2-methyl-4-isothiazolin-3-one at 0.00011 % and 2-methyl-4-isothiazolin-3-one at 0.000037% as preservatives

REGISTRATION NUMBER 34247 PEST CONTROL PRODUCTS ACT

READ THE LABEL AND BOOKLET BEFORE USING

KEEP OUT OF REACH OF CHILDREN  
CAUTION

POTENTIAL SKIN SENSITIZER SHAKE WELL BEFORE USING

DO NOT ALLOW TO FREEZE

NET CONTENTS: 1 or 4 LITRES

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1-844-810-5720  
1-416-840-5639

**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 control product in a way that is inconsistent with the directions on the label.

## **PRECAUTIONS**

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

Potential skin sensitizer. Do not get in eyes, on skin or on clothing. Prolonged or frequent repeated skin contact may cause allergic reactions in some individuals.

Apply only to agricultural crops when the potential for drift to areas of human habitation and 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 Equipment (PPE)**

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab.

Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User safety recommendations:

Users should:

- Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove Personal Protective Equipment immediately after handling this product.
- Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.

### **RESTRICTED ENTRY INTERVAL:**

For Grapes:

Restricted-entry Interval (REI): For the purposes of cane-girdling and turning, do not enter or allow worker entry into treated areas during the REI of 2 days.

For all other uses:

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

For Hops:

Restricted-entry Interval (REI): For the purposes of stripping and training, do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 2 days after application.

## **ENVIRONMENTAL PRECAUTIONS**

Toxic to bees. DO NOT apply this product during crop flowering period or when flowering weeds are present in the field, orchard or vineyard.

TOXIC to certain beneficial arthropods (which may include predatory and parasitic insects, spiders, and mites). Minimize spray drift to reduce harmful effects on beneficial arthropods in habitats next to the application site, such as hedgerows and woodland.

TOXIC to aquatic organisms and non-target terrestrial plants. 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 filter strip between the treated area and the edge of the water body.

## **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

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.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

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

## **TOXICOLOGICAL INFORMATION**

No specific antidote is known. Treat the patient symptomatically.

## **STORAGE AND DISPOSAL**

Store this product away from food or feed.

**PESTICIDE STORAGE:** Store product in cool, dry place and in such a manner as to prevent cross-contamination with other pesticides, fertilizers, food and feed. Store product in original container and out of reach of children, preferably in a locked storage area. Do not allow product or containers to freeze.

**DISPOSAL:** Do not reuse this container for any purpose. This is a recyclable container and is to be disposed of at a container collection site. Contact your local distributor/ dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

- Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 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 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.

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Restricted-entry Interval (REI): For the purposes of stripping and training, do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 2 days after application.

## **ENVIRONMENTAL PRECAUTIONS**

Toxic to bees. **DO NOT** apply this product during crop flowering period or when flowering weeds are present in the field, orchard or vineyard.

**TOXIC** to certain beneficial arthropods (which may include predatory and parasitic insects, spiders, and mites). Minimize spray drift to reduce harmful effects on beneficial arthropods in habitats next to the application site, such as hedgerows and woodland.

**TOXIC** to aquatic organisms and non-target terrestrial plants. 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 filter strip between the treated area and the edge of the water body.

## **FIRST AID**

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## **TOXICOLOGICAL INFORMATION**

No specific antidote is known. Treat the patient symptomatically.

## **DIRECTIONS FOR USE**

Read these entire DIRECTIONS FOR USE, PRECAUTIONS, and ENVIRONMENTAL PRECAUTIONS before using SPIRO SC Miticide.

To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section.

## **GENERAL INFORMATION**

SPIRO SC Miticide is a Suspension Concentrate formulation. SPIRO SC Miticide is active by contact on mite eggs, all nymphal stages and adult females when applied at the specified rate. Application should be timed to coincide with threshold level in developing mite population. Consult local experts for treatment threshold. Performance evaluations should be made 7 to 10 days following application. SPIRO SC Miticide should be applied only through properly calibrated ground application equipment. Thorough coverage of all plant parts is required for optimum performance.

**DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT.**

**DO NOT** apply through any type of irrigation system.

**DO NOT** apply in enclosed structures, such as greenhouses or plant houses.

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

**DO NOT** tank-mix with spray adjuvants such as penetrators, stickers and spreaders.

**DO NOT** apply this product during crop flowering period or when flowering weeds are present in the field, orchard or vineyard.

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

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

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

To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section.

## **SPRAY DRIFT MANAGEMENT RECOMMENDATIONS**

The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator. Avoiding applications when wind direction is toward the aquatic area can reduce risk of exposure to sensitive aquatic areas. Restrictions during Temperature Inversions: Do not make any applications during temperature inversions. Drift potential is high during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical mixing.

### **AIRBLAST (Air Assist) Specific Recommendations for Tree Crops:**

Airblast sprayers carry droplets into the canopy of trees via an air stream directed radially or laterally. The following drift management practices should be followed:

- Adjust deflectors and aiming devices so that spray is only directed into the canopy.
- Block off upward pointed nozzles when there is no overhanging canopy.
- Use enough air volume to penetrate the canopy and provide good coverage.
- Do not allow the spray to go beyond the edge of the cultivated area (i.e. turn off sprayer when turning at end rows).
- For applications to the outside rows, only spray inward, toward the orchard.

### **Airblast application:**

DO NOT apply during periods of dead calm. Avoid application when winds are gusty. Airblast application: DO NOT direct spray above plants to be treated. Turn off outward pointing nozzles at row ends and outer rows. DO NOT apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

### **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) fine classification. Boom height must be 60 cm or less above the crop or ground.

Spray buffer zones:

A spray buffer zone is NOT required for:

- uses with hand-held application equipment permitted on this label,
- low-clearance hooded or shielded sprayers that prevent spray contact with crop, fruit or foliage.

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

Method of Application	Crop		Spray Buffer Zones (metres) Required for the Protection of:		
			Aquatic Habitat of Depths:		Terrestrial Habitats:
			Less than 1 m	Greater than 1 m	
Field Sprayer	Highbush and lowbush blueberries		2	0	1
Airblast	Highbush and lowbush blueberries	Early growth stage	2	0	1

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

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.

## MIXING INSTRUCTIONS

To prepare the spray mixture, add a portion of the required amount of water to the spray tank then, with agitation, add SPIRO SC Miticide. Complete filling the tank with balance of water needed. Maintain sufficient agitation during both mixing and application.

RECOMMENDED APPLICATIONS		
CROP	PEST	RATE SPIRO SC Miticide
Pome Fruit Apple Crabapple Loquat Mayhaw Pear Pear, Oriental Quince	European red mite, Twospotted spider mite, McDaniel spider mite, Apple rust mite, Pear rust mite	0.71 L/ha
Stone Fruit Apricot, Cherry (sweet & tart), Nectarine, Peach, Plum, Prune	European red mite, Twospotted spider mite, McDaniel spider mite, Peach silver mite	
<p>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 Sharda Cropchem Limited under the User Requested Minor Use Label Expansion program. For these uses, Sharda Cropchem Limited 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.</p>		
Tree nuts (Crop Group 14) Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory nut, Macadamia nut (bush nut), Pecan, Walnut (black and English)	European red mite, Twospotted spider mite, McDaniel spider mite	0.71 L/ha

**APPLICATION TIMING:** Post-bloom Application Only. For all crops, apply specified rate as a dilute or concentrate foliar spray at threshold for target mite pest. Consult local experts for treatment threshold. Thorough coverage of foliage is essential for optimum control.

**MAXIMUM NUMBER OF APPLICATIONS:** 1 per year.

Maximum SPIRO SC Miticide allowed per crop season: 0.71 L/ha.

**PRE-HARVEST INTERVAL (PHI):** Allow at least 7 days between application and harvest.

The specified rate per hectare is for standard size trees, 4.5 to 5.5 metres high, which require 3000 L/ha of dilute spray for complete coverage to run-off. The amount of SPIRO SC Miticide required will vary according to tree size and volume of foliage.

Application rate should be based on the Tree-Row-Volume/Density concept for either dilute or concentrate applications. For determining product required in concentrate applications, first determine amount of spray volume per hectare necessary to spray-to-drip in a dilute application in an orchard.

Based on this volume, calculate amount of product per hectare required. Apply an equivalent amount of product per hectare for concentrated sprays.

For concentrated sprays:

Minimum application volume:

Pome fruit: for full-sized trees is 1000L/ha

Stone fruit: for full-sized trees is 500L/ha

Tree Nuts (Crop Group 14) is 500 L/ha

**ADDITIONAL RESTRICTIONS:**

Do not graze treated orchards.

Do not use in orchards inter-planted with other crops.

Grapes	European red mite, Twospotted spider mite, McDaniel spider mite	0.71 L/ha
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**APPLICATION TIMING:** Post-bloom Application Only. For grapes, apply specified rate as a dilute foliar spray at threshold for target mite pest. Consult local experts for treatment threshold. Thorough coverage of foliage is essential for optimum control.

**PRE-HARVEST INTERVAL (PHI):** Allow at least 14 days between application and harvest.

**MAXIMUM NUMBER OF APPLICATIONS:** 1 per year. Maximum SPIRO SC Miticide allowed per crop season: 0.71 L/ha.

Minimum application volumes: 1000 L/ha.

**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 Sharda Cropchem Limited under the User Requested Minor Use Label Expansion program. For these uses, Sharda Cropchem Limited 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.

CROP	PEST	RATE SPIRO SC Miticide
Blueberry (highbush and lowbush)	Blueberry bud mite	1.23 L/ha
<p>APPLICATION TIMING: For all crops, apply specified rate as a dilute spray of 100 to 1000 L/ha at threshold for target mite pest. Consult local experts for treatment threshold. Thorough coverage of foliage is essential for optimum control.</p> <p>MAXIMUM NUMBER OF APPLICATIONS: 1 per year.</p> <p>MAXIMUM AMOUNT OF SPIRO SC Miticide allowed per crop season: 1.23 L/ha.</p> <p>PRE-HARVEST INTERVAL (PHI): Allow at least 7 days between application and harvest.</p> <p>ADDITIONAL RESTRICTIONS: Do not graze treated fields. Do not use in fields inter-planted with other crops.</p>		

**NOTE TO USER:** The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than Sharda Cropchem Limited under the User Requested Minor Use Label Expansion program. For these uses, Sharda Cropchem Limited 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.

<u>Crop</u>	<u>Pest</u>	<u>Rate</u> SPIRO SC Miticide
Hops	Twospotted spider mite	0.71 L/ha
<p>APPLICATION TIMING: Apply specified rate as a dilute foliar spray at threshold for target mite pest. Thorough coverage of foliage is essential for optimal control. Recommended water volumes are 500-1000 L/ha. Consult local experts for treatment threshold.</p> <p>MAXIMUM NUMBER OF APPLICATIONS: 1 per year.</p> <p>MAXIMUM AMOUNT OF SPIRO SC Miticide allowed per crop season: 0.71 L/ha.</p> <p>PRE-HARVEST INTERVAL (PHI): Allow at least 21 days between application and harvest.</p>		

## RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, SPIRO SC Miticide contains a Group 23 acaricide. Any mite population may contain individuals naturally resistant to SPIRO SC Miticide and other Group 23 acaricides. The resistant individuals may dominate the mite population if this group of acaricides is used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action, but are specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance management strategies should be followed.

To delay acaricide resistance:

- Where possible, rotate the use of SPIRO SC Miticide with other Group 23 acaricides with different groups that control the same pests.
- Use tank mixtures with acaricides from a different group that is effective on the target pest when such use is permitted.
- Acaricide use should be based on an IPM program that includes scouting and record keeping, and considers cultural, biological and other chemical control practices.
- Monitor treated pest populations for resistance development.
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- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance, contact Sharda Cropchem Limited at 1-844-810-5720.

## STORAGE AND DISPOSAL

Store this product away from food or feed.

**PESTICIDE STORAGE:** Store product in cool, dry place and in such a manner as to prevent cross-contamination with other pesticides, fertilizers, food and feed. Store product in original container and out of reach of children, preferably in a locked storage area. Do not allow product or containers to freeze.

**DISPOSAL:** Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/ dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

- Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 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 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.