

OSO® 5%SC FUNGICIDE

For Control of Fungal Diseases of Listed Vegetable and Fruit Crops

ACTIVE INGREDIENT:
 Polyoxin D zinc salt 5.0%

OTHER INGREDIENTS: 95.0%

TOTAL: 100.0%

Contains 7.03 ounces of active ingredient per gallon.

**Net Contents:
 1 Quart (32 Fluid Ounces)**

EPA Reg. No. 68173-4-70051
 EPA Est. No. 70051-CA-001
 Lot Number:

Distributed by: Certis U.S.A. L.L.C.
 9145 Guilford Road, Suite 175
 Columbia, MD 21046-1883
 800-250-5024



Product Item Code: 154510
 Packaging Item Code: 550550
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**KEEP OUT OF REACH OF CHILDREN
 CAUTION**

See attached booklet for additional Precautionary Statements,
 First Aid Statements, Directions for Use, and Storage and Disposal Statements.

SHAKE WELL BEFORE USE

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

Caution. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin and clothing. 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.

FIRST AID	
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> 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.
IF IN EYES:	<ul style="list-style-type: none"> 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 further treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none"> Call a poison control center 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 center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED:	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
 HOTLINE NUMBER: 1-800-255-3924

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants;
- Socks;
- Shoes; and
- Chemical-resistant gloves.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no instructions are available, use detergent and hot water for washables. Keep and wash PPE separately from other laundry. When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides, the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

- Users should:
- Remove clothing/PPE immediately if pesticides get inside. Then wash thoroughly and put on clean clothing.
 - 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.

ENVIRONMENTAL HAZARDS

For terrestrial use. This pesticide is moderately toxic to aquatic invertebrates and fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate. Do not allow runoff into lakes, streams, ponds or public waterways. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Observe the most restrictive labeling limitations and precautions of all products used in mixtures.

GENERAL INFORMATION

OSO@ 5%SC can be applied as a preventative or curative treatment in conjunction with good management practices.

OSO@ 5%SC can be used alone or, when diseases not specified on this label are present or expected, in combination and/or rotation with other appropriately labeled fungicides as a tool for integrated disease management in labeled agricultural crops. See "Mixing and Handling Instructions" below for additional information.

Preharvest Interval (PHI) = 0 days. OSO@ 5%SC is exempt from the requirement for residue tolerance and therefore can be applied up to and including the day of harvest.

RESISTANCE MANAGEMENT RECOMMENDATIONS

This product contains a Group 19 fungicide. Any fungal population may contain individuals naturally resistant to this product and other Group 19 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance management strategies should be followed. To delay fungicide resistance, take one or more of the following steps:

- Rotate the use of this product or other Group 19 fungicides within a growing season sequence with different groups that control the same pathogens. Avoid application of more than the specified maximum number of applications and 2 consecutive sprays of this product or other fungicides in the same group in a season.
- Use tank mixtures with fungicide from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which 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. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance management and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance contact your pesticide distributor or university extension specialist.

DIRECTIONS FOR USE

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.

For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

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.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours unless wearing appropriate PPE.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is: coveralls, socks, shoes, and chemical-resistant gloves.

MIXING AND APPLICATION INSTRUCTIONS

OSO® 5%SC may be applied by ground spray equipment, as a soil drench, or by chemigation through sprinklers or drip irrigation. See the table below for information on application methods and timing for specific crops and diseases.

For spray application, mix OSO® 5%SC in water and apply as a spray to foliage, fruit, or other above-ground plant parts. For optimum control of labeled diseases, apply in sufficient volume of water to provide thorough coverage with minimal run-off.

See "Chemigation Instructions" below for information about applying OSO® 5%SC through irrigation systems.

Rates for banded (in-furrow) application: Find desired application rate in the left column. Read across the line to the correct row spacing indicated at the top to find the number of fluid ounces per 1000 row feet that will provide the desired application rate per acre.

Fluid oz. per acre	Fluid ounces per 1000 row feet														
	Space between rows (inches)														
	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
6.50	0.15	0.17	0.20	0.22	0.25	0.27	0.30	0.32	0.35	0.37	0.40	0.42	0.45	0.47	0.50
13.00	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	0.99

CHEMIGATION INSTRUCTIONS

GENERAL INFORMATION:

- Apply this product only through pressurized irrigation systems such as sprinkler irrigation including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move; or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.
- Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.
- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank at least twice the inside diameter of the fill pipe.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.
- The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Do not apply when wind speed favors drift beyond the area intended for treatment.
- Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the recommended rate evenly to the entire treated area.
- Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and injector system and flush with clean water before use. Failure to provide a clean tank, free of scale or residues may reduce effectiveness of this product.

Mixing instructions for OSO® 5%SC:

- Shake well before use.
- Fill tank with water to ½ of the intended final volume.
- Start agitation of the spray tank.
- Add the appropriate amount of product to the tank according to the rates in this label.
- Agitate to ensure thorough mixing while adding the remaining required water.
- Do not allow the mixture to stand without agitation.
- Mix only the amount of solution needed to treat the desired area.

When tank mixing OSO® 5%SC with other products, observe all precautions and limitations on each separate product label.

When planning to mix this product with others, it is advisable to conduct a "jar test" to determine the physical compatibility of this product with the others. Using a quart jar, add the products (with agitation) to approximately one quart of water in the proportions they will appear in the final mixture. Add dry formulations first, followed by flowables, then emulsifiable concentrates like OSO® 5%SC last. After thorough mixing, allow this mixture to stand for 5 minutes. If the combination remains mixed or can be readily remixed, it is physically compatible. Once compatibility has been proven, use the same sequence for adding required ingredients to the tank.

To assess the potential for phytotoxicity, test tank mixtures on a small number of plants prior to more widespread application.

If more applications or shorter intervals than indicated in the table below are needed to maintain disease control, alternate OSO® 5%SC with other fungicides having different modes of action to avoid or slow development of pathogen resistance. See "Resistance Management Recommendations" above for more information.

Use of an adjuvant may enhance spray coverage of dense crop canopy, or plants that are difficult to wet due to waxy or hairy surfaces. Use only adjuvants that are labeled for such uses. Refer to "Mixing and Application Instructions" above for information on testing physical compatibility of OSO® 5%SC with other products.

BANDED (IN-FURROW) APPLICATION

Use the table below to determine the correct application rate in fluid ounces of product per 1,000 row feet based on row spacing and desired rate per acre. Mix the required amount of OSO® 5%SC in water and apply as banded spray (4" to 6" wide) or seedline drench centered over the planting furrow. Apply to soil immediately before seeding or directly over seeds in the furrow just before they are covered with soil. The volume of water required per acre or per 1,000 row feet will depend on the application equipment used. Consult your local cooperative extension service if you need assistance calibrating band spraying equipment.

DRIP (TRICKLE) AND MICRO-IRRIGATION CHEMIGATION:

- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the recommended rate evenly to the entire treated area.

SPRINKLER CHEMIGATION:

- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the recommended rate evenly to the entire treated area.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

CROPS, DISEASES AND APPLICATION RATES

CROP GROUP 1: ROOT AND TUBER VEGETABLES: Carrots and Parsnips		
DISEASES/PATHOGENS	RATES	ADDITIONAL INFORMATION
Alternaria leaf blight (<i>Alternaria dauci</i>) Cercospora leaf blight (<i>Cercospora carotae</i>) Powdery mildew (<i>Erysiphe polygoni</i>)	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre) Do not apply more than 4.3 oz a.i./acre/season (6 appl. at max. rate).	Begin applications soon after plant emergence and repeat on 7-14 day interval as long as conditions favor disease development. Apply as a foliar spray in sufficient water to achieve thorough coverage of all above-ground plant parts. May also be applied through overhead sprinkler irrigation. See "Chemigation Instructions" for additional information.
A rate of 6.5 fl. oz./acre may be used for preventative applications before onset of visible disease, in periods of low disease pressure, or in a tank mix with other fungicides for resistance management. Otherwise, use a rate of 13.0 fl. oz./acre.		

CROP GROUP 1: ROOT AND TUBER VEGETABLES: Ginseng†		
DISEASES/PATHOGENS	RATES	ADDITIONAL INFORMATION
Botrytis blight (<i>Botrytis cinerea</i>)	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre) Do not apply more than 4.3 oz a.i./acre/season (6 appl. at max. rate).	Apply as foliar spray every 7-10 days beginning within 2 weeks after plant emergence, prior to disease development (consult local extension service for advice on timing against these diseases). Continue throughout the season as needed to maintain control.
A rate of 6.5 fl. oz./acre may be used for preventative applications before onset of visible disease, in periods of low disease pressure, or in a tank mix with other fungicides for resistance management. Otherwise, use a rate of 13.0 fl. oz./acre.		
† Not for use in California.		

CROP GROUP 1: ROOT AND TUBER VEGETABLES: Potatoes		
DISEASES/PATHOGENS	RATES	ADDITIONAL INFORMATION
Black scurf (<i>Rhizoctonia solani</i>)	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre)	Apply as banded spray in-furrow at planting, either just before placement of seed pieces or over seed pieces before covering with soil. See additional instructions under BANDED (IN-FURROW) APPLICATION .
Early blight (<i>Alternaria solani</i>) Late blight (<i>Phytophthora infestans</i>)*	Do not apply more than 4.3 oz a.i./acre/season (6 appl. at max. rate).	Apply as a foliar spray in sufficient water to provide thorough coverage of all foliage. May also be applied through overhead sprinkler irrigation. See "Chemigation Instructions" for additional information. Begin as a preventative application and continue on a 7-14 day interval as needed to maintain control.
* Suppression only.		
A rate of 6.5 fl. oz./acre may be used for preventative applications before onset of visible disease, in periods of low disease pressure, or in a tank mix with other fungicides for resistance management. Otherwise, use a rate of 13.0 fl. oz./acre.		

CROP GROUP 3: BULB VEGETABLES: Chive, Daylily, Elegans hosta, Fritillaria, Garlic, Kurrat, Lady's leek, Leek, Lily, Onion, Shallot, Cultivars, varieties, and/or hybrids of these		
DISEASES/PATHOGENS	RATES	ADDITIONAL INFORMATION
Alternaria blight and Purple blotch (<i>Alternaria</i> spp.) Botrytis leaf blight / Leaf spot / Neck rot (<i>Botrytis</i> spp.) Downy mildew (<i>Peronospora</i> spp.)* Rust (<i>Puccinia allii</i> or <i>Puccinia porri</i>)	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre) Do not apply more than 4.3 oz a.i./acre/season (6 appl. at max. rate).	Apply as foliar preventative spray (ground, or through overhead sprinklers) before disease onset and continue at 7-14 day intervals as needed to maintain control. Coverage may be enhanced by use of a spray adjuvant.
* Suppression only.		
A rate of 6.5 fl. oz./acre may be used for preventative applications before onset of visible disease, in periods of low disease pressure, or in a tank mix with other fungicides for resistance management. Otherwise, use a rate of 13.0 fl. oz./acre.		

CROP GROUP 4: LEAFY VEGETABLES (EXCEPT BRASSICA VEGETABLES): Amaranth, Arugula (garden rocket), Asparagus chichory, Beet greens (spinach beet), Borage, Catalogna, Celery, Chard, Chaya, Chicory, Colocasia, Corn salad (mâche), Dandelion, Endive, Escarole, Fenugreek, Garden cress, Ground-elder, Kailan, Lettuce (Head, Leaf, Iceberg, Romaine), Mizuna, Purslane, Radichetta, Radicchio, Sorrel, Spinach, Spinach beet (beet greens), Spring greens (Spring mix), Stinging nettle, Tatsoi, Tropaeolum (<i>Nasturtium</i>), Turnip greens, Watercress (<i>Nasturtium</i>), Water spinach (ong choy), Yarrow		
DISEASES/PATHOGENS	RATES	ADDITIONAL INFORMATION
Alternaria leaf spot (<i>Alternaria</i> spp.) Downy mildew (<i>Bremia lactucae</i> and <i>Peronospora</i> spp.)* Powdery mildew (<i>Golovinomyces</i> (<i>Erysiphe</i>) <i>cichoracearum</i>) White rust (<i>Albugo occidentalis</i>)	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre)	Begin applications soon after plant emergence or transplanting and repeat on 7-14 day interval as long as conditions favor disease development. Apply as a foliar spray in sufficient water to achieve thorough coverage of all above-ground plant parts.
Botrytis damping off (<i>Botrytis</i> spp.)	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre)	Apply as banded spray (4-6" wide) over the seed furrow at planting or transplanting. See additional instructions under BANDED (IN-FURROW) APPLICATION .
Botrytis leaf blight, Botrytis rot (<i>Botrytis</i> spp.)	Do not apply more than 4.3 oz a.i./acre/season (6 appl. at max. rate).	Begin preventative foliar applications when conditions favor disease development and continue at 7-14 day intervals as long as needed to maintain control.
Bottom rot (<i>Rhizoctonia solani</i>)		Apply in 30-50 gallons of water per acre as a directed spray toward soil surface and lower leaves. Begin applications at head formation, before leaves contact the ground. Repeat every 7-14 days as needed to maintain control.
Lettuce drop (<i>Sclerotinia</i> spp.)		Apply in 30-50 gallons of water per acre as a directed spray toward soil surface and lower leaves. Make first application to direct-seeded lettuce immediately after emergence. For transplanted lettuce, make first application immediately after transplanting. In both cases, apply prior to disease development. Apply again if soil is disturbed by cultivation or thinning and conditions continue to favor disease development.
* Suppression only.		
May also be applied through overhead sprinkler irrigation. See "Chemigation Instructions" for additional information.		
A rate of 6.5 fl. oz./acre may be used for preventative applications before onset of visible disease, in periods of low disease pressure, or in a tank mix with other fungicides for resistance management. Otherwise, use a rate of 13.0 fl. oz./acre.		

CROP GROUP 5: BRASSICA (COLE) LEAFY VEGETABLES: Broccoli, Broccoli raab, Brussels sprouts, Cabbage, Chinese broccoli, Chinese cabbage (Bok choy, Napa, Gai choy), Cauliflower, Cavalo broccolo, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens		
DISEASES/PATHOGENS	RATES	ADDITIONAL INFORMATION
Alternaria leaf spot (<i>Alternaria</i> spp.) Anthraco (<i>Colletotrichum</i> spp.) Gray mold (<i>Botrytis cinerea</i>)	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre) Do not apply more than 4.3 oz a.i./acre/season (6 appl. at max. rate).	Apply as a foliar spray in sufficient water to attain thorough coverage. Use of an adjuvant may enhance spray coverage, especially of waxy leaves. Begin preventive sprays when conditions favor disease development, and continue on a 7-14 day spray interval as needed.
Bottom rot (<i>Rhizoctonia solani</i>)		Apply in 30-50 gallons of water per acre as a directed spray toward soil surface and lower leaves. Begin applications at head formation, before leaves contact the ground. Repeat every 7-14 days as needed to maintain control.
A rate of 6.5 fl. oz./acre may be used for preventative applications before onset of visible disease, in periods of low disease pressure, or in a tank mix with other fungicides for resistance management. Otherwise, use a rate of 13.0 fl. oz./acre.		

CROP GROUP 6: LEGUME VEGETABLES (SUCCULENT OR DRIED): Bean (<i>Lupines</i> spp.), Bean (<i>Phaseolus</i> spp., including Field bean, Kidney bean, Lima bean, Navy bean, Pinto bean, Runner bean, Snap bean, Tepary bean, Wax bean), Bean (<i>Vigna</i> spp., including Adzuki bean, Asparagus bean, Blackeyed pea, Catjang, Chinese longbean, Cowpea, Crowder pea, Moth bean, Mung bean, Southern pea, Urd bean, Yardlong bean), Broad bean (Fava bean), Chickpea (Garbonzo bean), Guar, Jackbean, Lablab bean (hyacinth bean), Lentil, Pea (<i>Pisum</i> spp., including Dwarf pea, Edible pod pea, English pea, Field pea, Garden pea, Green pea, Snow pea, Sugar snap pea), Pigeon pea, Soybean, Sward bean		
DISEASES/PATHOGENS	RATES	ADDITIONAL INFORMATION
Asian Soybean Rust (<i>Phakopsora pachyrhizi</i>) Gray mold (<i>Botrytis cinerea</i>) Powdery mildew (<i>Erysiphe pisi</i>)	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre) Do not apply more than 4.3 oz a.i./acre/season (6 appl. at max. rate).	Begin applications at first sign of disease symptoms and repeat on 7-14 day interval as long as conditions favor disease development. Apply as a foliar spray in sufficient water to achieve thorough coverage of all above-ground plant parts. May also be applied through overhead sprinkler irrigation. See "Chemigation Instructions" for additional information.
A rate of 6.5 fl. oz./acre may be used for preventative applications before onset of visible disease, in periods of low disease pressure, or in a tank mix with other fungicides for resistance management. Otherwise, use a rate of 13.0 fl. oz./acre.		

CROP GROUP 8: FRUITING VEGETABLES: Eggplant, Groundcherry, Peppers (all types), Tomatillo, Tomatoes (all types)		
DISEASES/PATHOGENS	RATES	ADDITIONAL INFORMATION
Anthraco (<i>Colletotrichum</i> spp.)* Early blight (<i>Alternaria solani</i>) Gray mold/Botrytis rot (<i>Botrytis</i> spp.) Late blight* (<i>Phytophthora infestans</i>) Leaf mold (<i>Fulvia</i> (<i>Cladosporium</i>) <i>fulvum</i> , also known as <i>Passalora fulva</i>) Powdery mildew (<i>Leveillula</i> , <i>Oidiopsis</i> , <i>Erysiphe</i> , and <i>Sphaerotheca</i> spp.) Target spot (<i>Corynespora cossiiicola</i>)*	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre) Do not apply more than 4.3 oz a.i./acre/season (6 appl. at max. rate).	Apply as a preventative foliar spray when conditions favor disease development. Repeat application at 7-14 day intervals as needed during infection periods. Mix in sufficient water to attain thorough coverage of foliage and fruit (if present).
Southern blight (<i>Sclerotium rolfsii</i>)*		See additional instructions under BANDED (IN-FURROW) APPLICATION . Can also be applied through surface (not buried) drip or overhead sprinkler irrigation. See "Chemigation Instructions" for additional information. Make subsequent applications at 7-14 day intervals either through surface drip or overhead sprinkler irrigation, or as a spray/drench directed at the base of each plant.
* Suppression only. A rate of 6.5 fl. oz./acre may be used for preventative applications before onset of visible disease, in periods of low disease pressure, or in a tank mix with other fungicides for resistance management. Otherwise, use a rate of 13.0 fl. oz./acre.		

CROP GROUP 9: CUCURBIT VEGETABLES: Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Gourd (edible, including hyotan, cucuzza, hechima, Chinese okra), <i>Momordica</i> spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon), Pumpkin, Squash (including acorn squash, butternut squash, calabaza, crookneck squash, hubbard squash, scallop squash, spaghetti squash, straightneck squash, vegetable marrow, zucchini), Watermelon, Hybrids and varieties of these		
DISEASES/PATHOGENS	RATES	ADDITIONAL INFORMATION
Anthracnose (<i>Colletotrichum orbiculare</i>) Downy mildew (<i>Pseudoperonospora cubensis</i>)* Early blight (<i>Alternaria</i> sp.) Gray mold (<i>Botrytis</i> sp.) Gummy stem blight (<i>Didymella bryoniae</i> and <i>Phoma cucurbitacearum</i>) Powdery mildew (<i>Erysiphe</i> and <i>Sphaerotheca</i> spp. and <i>Podosphaera xanthii</i>) Scab (<i>Cladosporium</i> sp.) Target leaf spot / <i>Corynespora</i> leaf spot / <i>Corynespora</i> blight (<i>Corynespora crassicola</i>)	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre) Do not apply more than 4.3 oz a.i./acre/season (6 appl. at max. rate).	Mix in sufficient volume of water for good spray coverage (typically 50-100 gallons per acre). Begin preventive sprays when conditions favor disease development, and continue on a 7-14 day spray interval as needed. For <i>Downy mildew</i> , begin preventive sprays when conditions favor disease development, and continue on a 5-8 day spray interval as needed.
Southern blight (<i>Sclerotium rolfsii</i>)		See additional instructions under BANDED (IN-FURROW) APPLICATION . Can also be applied through surface (not buried) drip or overhead sprinkler irrigation. See "Chemigation Instructions" for additional information. Make subsequent applications at 7-14 day intervals either through surface drip or overhead sprinkler irrigation, or as a spray/drench directed at the base of each plant.
* Suppression only. A rate of 6.5 fl. oz./acre may be used for preventative applications before onset of visible disease, in periods of low disease pressure, or in a tank mix with other fungicides for resistance management. Otherwise, use a rate of 13.0 fl. oz./acre.		

CROP GROUP 10: CITRUS FRUITS: Calamondin, Citron, Citrus hybrids (Chironja, Tangelo, Tangor), Clementine, Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Orange, Pummelo, Sutsuma mandarin		
DISEASES/PATHOGENS	RATES	ADDITIONAL INFORMATION
Alternaria brown spot (<i>Alternaria alternata</i>) Botrytis rot (<i>Botrytis cinerea</i>) Septoria spot (<i>Septoria citri</i>)	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre) Do not apply more than 4.3 oz a.i./acre/season (6 appl. at max. rate).	Apply as preventative foliar spray before disease development, when spring flush is ¼ to ½ expanded. If needed, make second application to fully expanded flush. Begin preventative applications during bloom when rain or fog is expected. Repeat every 7-14 days as long as conditions favoring disease persist. Apply as a preventative spray in late fall or early winter, just before or after the first rain. Additional applications may be necessary during seasons of heavy rainfall.
A rate of 6.5 fl. oz./acre may be used for preventative applications before onset of visible disease, in periods of low disease pressure, or in a tank mix with other fungicides for resistance management. Otherwise, use a rate of 13.0 fl. oz./acre.		

CROP GROUP 11: POME FRUITS: Apple, Crabapple, Loquat, Mayhaw, Pear, Quince		
DISEASES/PATHOGENS	RATES	ADDITIONAL INFORMATION
Alternaria leaf spot (<i>Alternaria mali</i>) Powdery mildew (<i>Podosphaera leucotricha</i> , <i>Phyllactinia mali</i>) Scab (<i>Venturia</i> spp.)*	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre) Do not apply more than 4.3 oz a.i./acre/season (6 appl. at max. rate).	Apply as foliar spray in sufficient water to attain thorough coverage of foliage and fruit. For <i>Powdery mildew</i> control, begin as preventative and repeat on 7-14 day interval as needed. Use in an alternating program with a sterol inhibitor (DMI) fungicide. For <i>Scab suppression</i> , begin sprays at green tip and continue every 7-10 days as needed.
* Suppression only. A rate of 6.5 fl. oz./acre may be used for preventative applications before onset of visible disease, in periods of low disease pressure, or in a tank mix with other fungicides for resistance management. Otherwise, use a rate of 13.0 fl. oz./acre.		
Alternaria rot (<i>Alternaria tenuis</i>) Bitter rot (<i>Glomerella cingulata</i>) Flyspeck (<i>Schizothyrium pomi</i> , formerly <i>Microthyriella rubi</i>) Sooty blotch (<i>Gloeodes pomigena</i>) White rot** (<i>Botryosphaeria dothidea</i>)	6.5 fl. oz./acre (0.36 oz. a.i./acre) Do not apply more than 2.2 oz. a.i./acre/season (6 appl. at max. rate).	Begin applications prior to disease development. Repeat at 7-10 day interval as needed. May be applied from green-tip to day of harvest.
** Suppression only.		

CROP GROUP 12: STONE FRUITS: Apricot (including Japanese), Capulin, Cherry (Including Black, Nanking, Sweet, Tart), Jujube (Chinese), Nectarine, Peach, Plum (including American, Beach, Canada, Chery, Chickasaw, Damson, Japanese, Klamath, Prune), Plumcot, Sloe, Cultivars, varieties, and/or hybrids of these.		
DISEASES/PATHOGENS	RATES	ADDITIONAL INFORMATION
Botrytis blossom blight (<i>Botrytis cinerea</i>) Leaf curl (<i>Taphrina demormans</i>)* Monilinia brown rot blossom blight Monilinia brown rot fruit rot (<i>Monilinia</i> sp.) Powdery mildew (<i>Podosphaera</i> spp., <i>Sphaerotheca pannosa</i>) Scab (<i>Cladosporium carpophilum</i>)*	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre) Do not apply more than 4.3 oz a.i./acre/season (6 appl. at max. rate).	Apply as foliar spray in sufficient water to attain thorough coverage of foliage and fruit. For <i>Botrytis blossom blight</i> control, apply at full bloom if wet weather occurs during bloom. For <i>Leaf curl suppression</i> and <i>Scab</i> suppression, apply preventatively at bud swell. Repeat on 14-28 day intervals as needed. For <i>Monilinia brown rot blossom blight</i> and <i>fruit rot</i> control, apply preventatively when conditions favor disease development. Repeat on 7-14 day interval as needed. For preventative control of post-harvest brown rot fruit rot, apply at 6.5 fl. oz./acre up to 3 days pre-harvest. For <i>Powdery mildew</i> control, begin as preventative and repeat on 7-14 day interval as needed. Use in an alternating program with a sterol inhibitor (DMI) fungicide.
* Suppression only. A rate of 6.5 fl. oz./acre may be used for preventative applications before onset of visible disease, in periods of low disease pressure, or in a tank mix with other fungicides for resistance management. Otherwise, use a rate of 13.0 fl. oz./acre.		

CROP GROUP 13-07: BERRIES AND SMALL FRUITS: Excluding Blueberry (highbush and lowbush), Cranberry, Grape, and Strawberry Amur river grape, Aronia berry, Bayberry, Bearberry, Bilberry, Blackberry (including Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, brombeere, California blackberry, Chesterberry, Cherokee blackberry, Cheyenne blackberry, common blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, evergreen blackberry, Himalayaberry, hullberry, lavacaberry, loganberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, mora, mures deronce, nectarberry, Northern dewberry, olallieberry, Orgeon evergreen berry, phenomaberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tayberry, youngberry, zarzamora, and cultivars, varieties and/or hybrids of these); Buffalo currant, Buffaloberry, Che, Chilean guava, Chokeycherry, Cloudberry (highbush), Currant (black), Currant (red), Elderberry, European barberry, Gooseberry, Honeysuckle (edible), Huckleberry, Jostaberry, Juneberry (Saskatoon berry), Kiwifruit (fuzzy), Kiwifruit (hardy), Lingonberry, Maypop, Mountain pepper berries, Mulberry, Muntries, Native currant, Partridgeberry, Phalsa, Pincherry, Rasperry (black and red), Riberry, Salal, Schisandra berry, Sea buckthorn, Serviceberry, Wild raspberry, cultivars, varieties, and/or hybrids of these SEE SEPARATE TABLES FOR BLUEBERRIES, CRANBERRIES, GRAPES, AND STRAWBERRIES.		
DISEASES/PATHOGENS	RATES	ADDITIONAL INFORMATION
Alternaria leaf spot and fruit rot (<i>Alternaria</i> spp.) Anthracoese leaf & fruit rot (<i>Colletotrichum</i> spp.)* Gray mold / Fruit rot / Botrytis blight (<i>Botrytis cinerea</i>) Powdery mildew (<i>Sphaerotheca macularis</i> , <i>Erysiphe</i> spp.) Yellow rust (<i>Phragmidium rubi-idaei</i>)	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre) Do not apply more than 4.3 oz a.i./acre/season (6 appl. at max. rate).	Apply as a foliar spray in sufficient water to provide thorough coverage. Can also be applied through overhead sprinkler irrigation. See "Chemigation Instructions" for additional information. Begin as a preventative application and continue on a 7-14 day interval as needed to maintain control. For control of <i>Botrytis and other fruit diseases</i> , begin applications at flowering.
* Suppression only. A rate of 6.5 fl. oz./acre may be used for preventative applications before onset of visible disease, in periods of low disease pressure, or in a tank mix with other fungicides for resistance management. Otherwise, use a rate of 13.0 fl. oz./acre.		

CROP GROUP 13-07: BERRIES AND SMALL FRUITS: Blueberries, highbush and lowbush		
DISEASES/PATHOGENS	RATES	ADDITIONAL INFORMATION
Alternaria leaf spot and fruit rot (<i>Alternaria</i> spp.) Anthracoese leaf & fruit rot (<i>Colletotrichum</i> spp.)* Gray mold / Fruit rot / Botrytis blight (<i>Botrytis cinerea</i>) Mummyberry (<i>Monilinia vaccinii-corymbosi</i>) Powdery mildew (<i>Sphaerotheca macularis</i> , <i>Erysiphe</i> spp.)	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre) Do not apply more than 4.3 oz a.i./acre/season (6 appl. at max. rate).	Apply as a foliar spray in sufficient water to provide thorough coverage. Can also be applied through overhead sprinkler irrigation. See "Chemigation Instructions" for additional information. Begin as a preventative application and continue on a 7-14 day interval as needed to maintain control. For control of <i>Botrytis and other fruit diseases</i> , begin applications at flowering. For control of <i>Mummyberry</i> , begin applications at early green tip.
* Suppression only. A rate of 6.5 fl. oz./acre may be used for preventative applications before onset of visible disease, in periods of low disease pressure, or in a tank mix with other fungicides for resistance management. Otherwise, use a rate of 13.0 fl. oz./acre.		

CROP GROUP 13-07: BERRIES AND SMALL FRUITS: Cranberries		
DISEASES/PATHOGENS	RATES	ADDITIONAL INFORMATION
Cottonball (<i>Monilinia oxycocci</i>) Cranberry Fruit Rot Complex (<i>Allantophomopsis</i> sp., <i>Botrytis cinerea</i> , <i>Colletotrichum acutatum</i> , <i>Colletotrichum gloeosporioides</i> , <i>Coloepnoma empetri</i> , <i>Fusicoccum putrefaciens</i> , <i>Glomerella cingulata</i> *, <i>Phomopsis vaccinii</i> , <i>Phylospora vaccinii</i> , <i>Phyllosticta vaccinii</i>)	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre) Do not apply more than 4.3 oz a.i./acre/season (6 appl. at max. rate).	Apply as a foliar spray in sufficient water to provide thorough coverage. Can also be applied through overhead sprinkler irrigation. See "Chemigation Instructions" for additional information. For <i>Cottonball</i> , begin as a preventative application at 10% bloom. Continue on a 7-14 day interval as needed to maintain control. For <i>Cranberry fruit rot complex</i> , begin as a preventative application at 40% bloom. Continue on a 7-14 day interval as needed to maintain control. For best performance, apply in 20 gallons water/acre.
* Suppression only. A rate of 6.5 fl. oz./acre may be used for preventative applications before onset of visible disease, in periods of low disease pressure, or in a tank mix with other fungicides for resistance management. Otherwise, use a rate of 13.0 fl. oz./acre.		

**CROP GROUP 13-07: BERRIES AND SMALL FRUITS:
Grapes: For pre-harvest use on all grapes**

DISEASES/PATHOGENS	RATES	ADDITIONAL INFORMATION
Black rot (<i>Guignardia bidwellii</i>)* Downy mildew (<i>Plasmopara viticola</i>) Gray mold / Bunch rot (<i>Botrytis cinerea</i>) Phomopsis fruit rot (<i>Phomopsis viticola</i>) Powdery mildew (<i>Erysiphe (Uncinula) necator</i>)	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre) Do not apply more than 4.3 oz a.i./acre/season (6 appl. at max. rate).	For <i>Black rot</i> suppression, begin as a preventative spray when shoots are 3-5 inches long. Repeat every 7-14 days as needed to maintain control. For <i>Downy mildew</i> and <i>Phomopsis fruit rot</i> , begin as a preventative spray when shoots are 3-5 inches long. Repeat every 7-14 days as needed to maintain control. For <i>Gray mold / Bunch rot</i> , begin application at early bloom. Apply a maximum of 6 applications per season at a minimum of 7-day intervals. For optimal control, include application at veraison as one of the 6 applications. For <i>Powdery mildew</i> , begin as a preventative spray and repeat every 14 days as needed to maintain control.
* Suppression only. A rate of 6.5 fl. oz./acre may be used for preventative applications before onset of visible disease, in periods of low disease pressure, or in a tank mix with other fungicides for resistance management. Otherwise, use a rate of 13.0 fl. oz./acre.		

**CROP GROUP 13-07: BERRIES AND SMALL FRUITS:
Strawberries**

DISEASES/PATHOGENS	RATES	ADDITIONAL INFORMATION
Alternaria leaf spot and fruit rot (<i>Alternaria</i> spp.) Anthracoese fruit rot (<i>Colletotrichum acutatum</i> , <i>C. dematium</i>) Common leaf spot (<i>Mycosphaerella fragariae</i>) Gray mold / Fruit rot / Botrytis blight (<i>Botrytis cinerea</i>) Leather rot (<i>Phytophthora cactorum</i>) Phomopsis leaf spot and fruit rot (<i>Phomopsis obscurans</i>) Powdery mildew (<i>Sphaerotheca macularis</i> , <i>Erysiphe</i> spp.) Rhizopus soft rot (<i>Rhizopus</i> sp. and <i>Mucor</i> sp.) Tan brown rot (<i>Hainesia lythri</i>)	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre) Do not apply more than 4.3 oz a.i./acre/season (6 appl. at max. rate).	Apply as a foliar spray in sufficient water to provide thorough coverage. Can also be applied through overhead sprinkler irrigation. See "Chemigation Instructions" for additional information. For <i>Alternaria</i> , <i>Anthracoese fruit rot</i> , <i>Common leaf spot</i> , <i>Gray mold</i> , <i>Leather rot</i> , <i>Phomopsis leaf spot and fruit rot</i> , <i>Powdery mildew</i> , and <i>Tan brown rot</i> , begin as a preventative application and continue on a 7-14 day interval as needed to maintain control. For <i>Rhizopus soft rot</i> , begin as a preventative application and continue on a 7-10 day spray interval as needed to maintain control. For control of <i>fruit diseases</i> , begin applications at flowering.
A rate of 6.5 fl. oz./acre may be used for preventative applications before onset of visible disease, in periods of low disease pressure, or in a tank mix with other fungicides for resistance management. Otherwise, use a rate of 13.0 fl. oz./acre.		

CROP CROUP 19: HERBS AND SPICES †:

Allspice, angelica, anise, anise (star), annatto (seed), balm, basil, borage, burnet, chamomile, caper buds, caraway, caraway (black), cardamom, cassia bark, cassia buds, catnip, celery seed, chervil (dried), Chive, chive (Chinese), cinnamon, clary, clove buds, coriander leaf (cilantro or Chinese parsley), coriander seed (cilantro), costmary, cilantro (leaf), culantro (seed), cumin, curry (leaf), dill (dillweed), dill (seed), fennel (common), fennel, Florence (seed), fenugreek, grains of paradise, horehound, hyssop, juniper berry, lavender, lemongrass, lovage (leaf), lovage (seed), mace, marigold, marjoram, mustard (seed), nasturtium, nutmeg, parsley (dried), pennyroyal, pepper (Black), pepper (White), poppy (seed), rosemary, rue, saffron, sage, Savory (summer and winter), sweet bay, tansy, tarragon, thyme, vanilla, wintergreen, woodruff, and wormwood.

DISEASES/PATHOGENS	RATES	ADDITIONAL INFORMATION
Downy mildew (<i>Peronospora</i> spp. and others) Powdery mildew (<i>Oidium</i> spp. and others)	6.5-13.0 fl. oz./acre (0.36-0.72 oz. a.i./acre) Do not apply more than 4.3 oz a.i./acre/season (6 appl. at max. rate).	Begin preventive sprays when conditions favor disease development, and continue on a 7-10 day spray interval as needed.
† Not for use in California. • Product may harm herbs and spices, especially new leaves. Do not apply to herbs and spices without prior testing on a small number of plants. • A rate of 6.5 fl. oz./acre may be used for preventative applications before onset of visible disease, in periods of low disease pressure, or in a tank mix with other fungicides for resistance management. Otherwise, use a rate of 13.0 fl. oz./acre.		

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in dry place away from food or feed.

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

CONTAINER HANDLING:

Nonrefillable container. Do not reuse or refill this container. Completely empty container into application equipment. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning (if available), or puncture and dispose of in a sanitary landfill or by incineration, if allowed by State and local authorities. If burned, stay out of smoke.

WARRANTY

Certis USA LLC warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purpose referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the disease problem, condition of the crop, incompatibility with other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage, or handling of this material not in strict accordance with directions given herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESSED OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.

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