

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460

Date of Issuance:

70506-328

**EPA Reg. Number:** 

10/17/16

NOTICE OF PESTICIDE:	Term of Issuance:
X Registration Reregistration	Unconditional
(under FIFRA, as amended)	Name of Booking Inc.

Name of Pesticide Product:

Trionic 4SC

Name and Address of Registrant (include ZIP Code):

Sherry B. Hutcheson United Phosphorus, Inc. 630 Freedom Business Center, Suite 402 King of Prussia, PA 19406

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

- 1. Submit and/or cite all data required for registration/registration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
- 2. The data requirements for storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) are not satisfied. A one year study is required to satisfy these data requirements. You have 18 months from the date of registration to provide these data.

Signature of Approving Official:	Date:
#	10/17/16
Hope Johnson, Product Manager 21	
Fungicide Branch, Registration Division (7505P)	

EPA Form 8570-6

- 3. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 70506-328."
  - Add Net Contents information and an appropriate EPA Establishment Number
- 4. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

Basic CSF dated Basic CSF dated 02/09/2016

If you have any questions, please contact Marcel Howard by phone at 703.305.6784, or via email at howard.marcel@epa.gov.

Enclosure

**GROUP** 

3

**FUNGICIDE** 

## **TRIONIC 4SC**

Active Ingredient: (% by weight) Triflumizole [1-[1-((4-chloro-2-(trifluoromethyl) phenyl) imino)-2-Other Ingredients: 57.86% 

Contains 4 lbs. triflumizole per gallon.

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

FIRST AID			
IF SWALLOWED	<ul> <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 the poison control center or doctor.</li> <li>Do not give anything to an unconscious person.</li> </ul>		
IF ON SKIN OR CLOTHING	<ul> <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>		
In Case of Emergency Call Rocky Mountain Poison Control at 1-866-673-6671.  Have a product container or label with you when calling a poison control center or doctor, or going for treatment.  For Chemical Emergency: Spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300.			

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United Phosphorus, Inc. 630 Freedom Business Center, Suite 402 King of Prussia, PA 19406 1-800-438-6071

EPA Reg. No. 70506-\_\_\_\_\_ EPA Est. No. \_\_\_\_\_

## ACCEPTED

Oct 17, 2016

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 70506-328

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if absorbed through skin or swallowed. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or the toilet.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below.

#### **Applicators and Other Handlers Must Wear:**

- long-sleeved shirt & long pants
- chemical-resistant gloves made of any waterproof material
- · shoes plus socks.
- Chemical-resistant hat during open cab air blast applications to pome fruit group 11-10 and cherries.

#### **USE SAFETY REQUIREMENTS**

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **ENGINEERING CONTROLS**

When handlers use closed systems or enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling the product. Wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to 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 cleaning equipment or disposing of equipment wash water or rinsate. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas.

#### PHYSICAL OR CHEMICAL HAZARDS

Do not mix or allow to come into contact with an oxidizing agent. Hazardous chemical reaction may occur.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read entire label directions before using.

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

#### 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 interval. 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 12 hours except for girdling of table and raisin grapes. The girdling of table and raisin grapes require a 1-day REI (24 hours).

PPE required for early entry to treated areas that is permit-ted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

coveralls; chemical-resistant gloves made of any waterproof material; and shoes plus socks.

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.

#### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a cool, dry, secure location.

**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.

For containers equal to or less than 5 gallons in size: 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.

**If pressure rinsing:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**Then** offer container for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, by incineration or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Recycling:** Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer or contact the Ag Container Recycling Council (ACRC) at 1-877-952-2272 (toll free) or www.acrecycle.org.

#### PRODUCT INFORMATION

TRIONIC 4SC is a broad-spectrum foliar fungicide for control of certain diseases of certain fruits and vegetables, ornamental plants, greenhouse grown vegetables (tomato and cucumber) and non-bearing fruit trees/shrubs that will not bear fruit for a minimum of 12 months that are listed within this product labeling.

TRIONIC 4SC fungicide is active as a protectant, and is most effective when applied prior to the onset of disease; and as an eradicant by preventing disease symptoms after infection has occurred. Its anti-sporulant activity reduces spores after lesions become visible.

Read the entire label and directions before using TRIONIC 4SC fungicide.

#### PRODUCT RESTRICTIONS

Do not allow livestock to graze on treated orchard ground cover. Aerial application of TRIONIC 4SC fungicide is allowed unless prohibited under a specific crop use direction. See USE DIRECTIONS FOR CHEMIGATION for specific types of irrigation systems allowed. Chemigation instructions are only applicable for ornamental and greenhouse grown vegetable uses. For agricultural uses, this product is not to be applied through any type of irrigation system. **RESISTANCE MANAGEMENT:** Populations of fungal pathogens are known to develop resistance to fungicides with the same mode of action when used repeatedly. Responsible resistance management is encouraged to ensure an effective long-term control of diseases. Resistance management strategies include alternating and/or tank mixing with other labeled fungicides having different modes of action or limiting the total number of applications per season.

TRIONIC 4SC fungicide belongs to the demethylation inhibitor (DMI) group of fungicides classified as Group 3. Do not make more than two sequential applications of TRIONIC 4SC fungicide before alternating to a registered fungicide with a different mode of action. Consult your local or state agricultural authorities for resistance management strategies that are appropriate for your disease management program.

#### **RESTRICTIONS ON ROTATIONAL CROPS:**

Crop(s)	Do Not Plant
Leafy or Fruiting Vegetables	Within 30 days after application of Trionic 4SC fungicide
Root and Tuber Vegetables	Within 60 days after application of Trionic 4SC fungicide
Cotton, Small Cereal Grain and All Other Crops Not Listed on This Label	Within 365 days after application of Trionic 4SC fungicide

### **POME FRUIT CROP GROUP 11-10**

For maximum fruit disease control during the season, TRIONIC 4SC fungicide can be tank mixed with standard protectant fungicides labeled for control of other diseases.

CROP	DISEASE	Use Rate per Acre	COMMENTS
Apples Azarole Crabapple Loquat Mayhaw Medlar Pear Pear, Asian Quince Quince, Chinese Quince, Japanese Tejocote	Powdery Mildew (Podosphaera leucotricha)	Ground Application 8 to 16 fl oz/A (0.25-0.50 lbs ai/A)  Aerial Application 12 to 16 fl oz/A (0.375-0.50 lbs ai/A)	Initiate spraying at first sign of mildew, usually at the 1/2" green tip stage. Continue applications at stated intervals as needed through the terminal growth period. If subsequent applications of Trionic 4SC are applied, wait 14 days after the first application to make the 2 <sup>nd</sup> application; wait 21 days to make the 3 <sup>rd</sup> application; wait 14 days to make the 4 <sup>th</sup> application. Use higher specified rates for heavier disease pressure.  Use a minimum of 100 gallons per acre spray volume for ground applications.  Use a minimum of 10 gallons per acre spray volume for aerial applications.
cultivars, varieties and or hybrids of these	Scab (Venturia inaequalis)  Cedar Apple Rust (Gymnosporangium juniperi-virginianae)		Standard Spray Schedule Apply 8 to 16 fl oz per acre at stated intervals from 1/2" green tip stage through second cover or until primary scab sporulation is complete. Use higher specified rates for more susceptible varieties and heavy disease pressure. For improved scab control apply in combination with a protectant fungicide. If subsequent applications of Trionic 4SC are applied, wait 14 days after the first application to make the 2 <sup>nd</sup> application; wait 21 days to make the 3 <sup>rd</sup> application; wait 14 days to make the 4 <sup>th</sup> application.  If changing to a protectant fungicide only after the end of the primary infection period, use 2 TRIONIC 4SC fungicide applications, 14 to 21 days apart.  Eradicant Spray Schedule (Post Infection Schedule) Initiate applications within 96 hours of the start of an infection period. Under low to moderate pressure conditions, rates in the lower range can be applied within 48 hours after the start of an infection period. Use rates in the higher specified range when disease pressure is high or if the time interval after the start of infection is greater than 48 hours.  For improved scab control, apply Trionic 4SC in combination with a protectant fungicide. After first cover, Trionic 4SC can be used in a standard cover spray program in tank mixes with appropriate protectant fungicide.

	Application of TRIONIC 4SC fungicide for control of scab will also control cedar apple rust.

- Application Timing: Do not apply less than 14 days apart or 21 days apart between second and third subsequent applications. PHI: 14 days prior to harvest.
- Do not apply less than the specified application rates.
- Do not apply more than 56 fl oz (1.75 lb ai) per acre per year.
- Do not allow livestock to graze on treated orchard ground cover.
- Maximum of 4 applications per acre per year.

<sup>\*</sup>Not registered for use by air in California.

### **BRASSICA LEAFY GREENS (CROP SUBGROUP 5B)**

If other leaf diseases in addition to powdery mildew or black spot must be controlled, TRIONIC 4SC fungicide can be tank mixed with other fungicides registered for those diseases. Repeat applications if conditions of powdery mildew development persist.

CROP	DISEASE	Use Rate per Acre	COMMENTS
Broccoli raab Chinese cabbage (bok choy) Collards Kale Mizuna Mustard spinach Rape greens Turnip greens (Including all cultivars and/or hybrids of these)	Powdery Mildew (Erysiphe polygoni) Black Spot (Alternaria spp.)	6 to 8 fl oz/A (0.19-0.25 lbs ai/A)	Apply as a foliar spray in sufficient water to provide thorough coverage of the foliage. Begin applications at the first indication of disease. Use higher specified rates if disease pressure is high and/or under conditions in which thorough coverage is more difficult. A single repeat application can be made no less than 14 days after the first application.  Use a minimum of 10 gallons per acre spray volume for ground applications.  Use a minimum of 2 gallons per acre spray volume for aerial applications.

- PHI: 1 day before harvest
- Do not apply more than 16 fl oz (0.5 lbs ai)per acre per Year.
- Maximum of 2 applications per acre per year.

### **CHERRIES (SWEET & TART)**

Apply throughout the season from delayed dormant to within 1 day of harvest. Apply in sufficient water to ensure complete and thorough coverage of foliage, flowers and fruit. Applications can be timed to maintain coverage on susceptible plant tissues throughout possible infection periods.

CROP	DISEASE	Use Rate per Acre	COMMENTS
Cherries (Sweet & Tart)	Powdery Mildew (Podosphaera clandestina)	Ground Applications 8 to 16 fl oz/A (0.25-0.50 lbs ai/A)  Aerial Applications 12 to 16 fl oz/A (0.375-0.50 lbs ai/A)	Initiate treatments at early popcorn and continue at stated intervals until terminal growth ceases. If subsequent applications of Trionic 4SC are applied, wait 14 days after the first application to make the 2 <sup>nd</sup> application; wait 21 days to make the 3 <sup>rd</sup> application; wait 14 days to make the 4 <sup>th</sup> application.  Use a minimum of 100 gallons per acre spray volume for ground applications. Where feasible, ground application should be used because it provides better canopy penetration and coverage. Use a minimum of 10 gallons per acre spray volume for aerial applications. Always use higher specified application rates on more susceptible varieties or when higher disease pressure conditions exist.
	Blossom Blight & Fruit Rot (Monilinia spp.)	Ground Applications 10 to 16 fl oz/A	<b>Blossom Blight Control:</b> Apply at early popcorn, full bloom and petal fall. Complete coverage must be maintained throughout the bloom period.
		(0.31-0.50 lbs ai/A)  Aerial Applications 12 to 16 fl oz/A (0.375-0.50 lbs ai/A	<b>Fruit Rot Control:</b> Depending on disease pressure, applications can also be directed to the fruit during the cover spray period. If subsequent applications of Trionic 4SC are applied, wait 14 days after the first application to make the 2 <sup>nd</sup> application; wait 21 days to make the 3 <sup>rd</sup> application; wait 14 days to make the 4 <sup>th</sup> application.
	Leaf Spot (Blumeriella jaapii)		Applications made to control <i>Podosphaera</i> or <i>Monilinia</i> will suppress the development of leaf spot. To control leaf spot, TRIONIC 4SC fungicide can be tank mixed with other products registered for leaf spot control.

- Application Timing: Do not apply less than 14 days apart or 21 days apart between second and third subsequent applications.
- PHI: 1 day before harvest.
- Do not apply less than specified labeled rates.
- Do not apply more than 56 fl oz (1.75 lbs ai) per acre per year.
- Maximum of 4 applications per acre per year.

#### **CUCURBIT VEGETABLES (CROP GROUP 9)**

If other leaf diseases in addition to powdery mildew must be controlled, TRIONIC 4SC fungicide can be tank mixed with other fungicides registered for those diseases. Thorough coverage of the foliage is necessary for maximum disease control. Repeated applications should be made if conditions of powdery mildew development persist.

CROP	DISEASE	Use Rates per Acre	COMMENTS
Cucumbers Gherkins Gourds Muskmelons (includes cantaloupes, honeydews, Persian melons and other melons) Pumpkins Squash (summer and winter) Watermelons	Powdery Mildew (Erysiphe cichoracearum, Podosphaera xanthii)	4 to 8 fl oz/A (0.125-0.25 lbs ai/A)	Apply as a foliar spray in sufficient water to provide thorough coverage of the foliage. Begin applications at the start of vining or the first indication of disease. Repeated applications can be made at 7 to 14 day intervals. When conditions are favorable for severe disease pressure, use higher specified rates and/or shorter intervals.

- PHI: 1 day before harvest.
- Do not apply more than 24 fl oz (0.75 lbs ai) per acre per year.
- Maximum of 4 applications per acre per year.

## GRAPES, SMALL FRUIT VINE CLIMBING SUBGROUP 13-07F, EXCEPT FUZZY KIWIFRUIT

Use TRIONIC 4SC fungicide as a protectant for control of powdery mildew. Select spray volume, nozzle adjustments and ground speed to ensure complete coverage of fruit clusters and foliage. Sulfur at specified use rates can be applied before, with, and/or between TRIONIC 4SC fungicide applications

CROP	DISEASE	Use Rates per Acre	COMMENTS
Amur River Grape Grape Gooseberry Maypop Schisandra berry cultivars, varieties, and/or hybrids of these	Powdery Mildew (Uncinula necator)	4 to 8 fl oz/A (0.125-0.25 lbs ai/A	Start applications before bloom and continue on a 14 to 21 day interval. Use 6 to 8 fl oz/A and/or shorter specified intervals on susceptible varieties or under heavy disease pressure. When disease pressure is low, use 4 to 6 fl oz/A and/or the spray interval can be extended to the higher end of the spray interval range. TRIONIC 4SC fungicide applied in a powdery mildew spray schedule, will enhance the activity of registered fungicides used for the control of Botrytis bunch rot. Applications must be made on a 14-day spray schedule for suppression of Botrytis bunch rot.  Apply in a minimum of 50 gallons of water per acre for early season applications. Use enough volume to ensure thorough coverage as the amount of foliage increase.

- PHI: 7 days before harvest.
- Do not apply more than 32 fl oz (1.0 lbs ai) per acre per year.
- Do not apply by air.
- Restricted Entry Interval (REI) for girdling table and raisin grapes is 24 hours.
- Maximum of 4 applications per acre per year.

## **HAZELNUTS (FILBERTS)**

CROP	DISEASE	Use Rate per Acre	COMMENTS
Hazelnuts (Filberts)	Eastern Filbert Blight (Anisogramma anomala)	4 to 6 fl oz/A (0.125-0.19 lbs ai/A)	Apply at budbreak (when the first green tissue is visible) as a preventative spray. Apply one repeat application at 10 to 14 days later if weather conditions are conducive to disease development. Use shorter spray intervals during bud break and rapid shoot elongation. The expanding shoot tip must be protected. Apply the high rate to varieties that are highly susceptible to the indicated disease or when severe disease conditions exist.  Use a minimum of 100 gallons per acre spray volume for ground applications.  Use a minimum of 15 gallons per acre spray volume for aerial applications. Use the highest labeled use rate for applications by air.  Apply in sufficient spray volume for thorough coverage.  Tank mixing the lowest labeled rate of a spray surfactant with TRIONIC 4SC fungicide may improve spray coverage and penetration. TRIONIC 4SC fungicide may be applied as a tank mix or alternated with non-DMI fungicides as a resistance management strategy.

- PHI: 18 days prior to harvest
- Do not apply more than 12 fl oz (0.375 lb ai) per acre per year
- Do not allow livestock to graze on treated orchard ground cover.
- Maximum of 2 applications per acre per year.

## **HEAD AND STEM BRASSICA (CROP SUBGROUP 5A)**

CROP	DISEASE	Use Rate per Acre	COMMENTS
Head & Stem Brassicas: Broccoli Broccoli, Chinese (gai Ion) Brussels sprouts Cabbage Cabbage, Chinese (napa) Cauliflower Cavalo broccoli Kohlrabi Mustard, Chinese (gai choy)	Powdery Mildew (Erysiphe polygoni)  Black Spot/ Alternaria leaf spot (Alternaria spp.)	6 to 8 fl oz/A (0.19-0.25 lbs ai/A)	Apply as a foliar spray in sufficient water to provide thorough coverage of the foliage. Begin applications at the first indication of disease. Use higher specified rates for heavier infestations and under conditions in which thorough coverage is more difficult. A single repeat application can be made no less than 14 days after the first application. Use a minimum of 10 gallons per acre spray volume for ground applications.  Use a minimum of 2 gallons per acre spray volume for aerial applications.

- PHI: 1 day before harvest
- Do not apply more than 16 fl oz (0.5 lb ai) per acre per year.
- Maximum of 2 applications per acre per year.

#### **HOPS**

CROP	DISEASE	Use Rate per Acre	COMMENTS
Hops	Powdery Mildew (Podosphaera macularis)	12 fl oz/A (0.375 lbs ai/A)	Apply as a foliar spray in sufficient water to provide thorough coverage of the foliage. Applications should begin prior to disease development or at the first indication of the disease. Use higher specified rates for heavier infections and under conditions in which thorough coverage is more difficult. A single repeat application can be made no less than 14 days after the first application.  Use a minimum of 50 gallons per acre spray volume for ground applications.  Use a minimum of 10 gallons per acre spray volume for aerial applications.

- PHI: 7 days before harvest.
- Do not graze livestock in treated areas or harvest crops grown in treated areas for silage or for hay.
- Do not apply more than 24 fl oz (0.75 lb ai) per acre per year.
- Maximum of 2 applications per acre per year.

### LEAFY GREENS EXCEPT SPINACH (CROP SUBGROUP 4A)

If other leaf diseases in addition to powdery mildew or black spot/Alternaria leaf spot must be controlled, TRIONIC 4SC fungicide can be tank mixed with other fungicides registered for those diseases. Repeated applications should be made if conditions of powdery mildew or black spot/Alternaria leaf spot development persist.

CROP	DISEASE	Use Rate per Acre	COMMENTS
Leafy Greens (except spinach) Amaranth Arugula Chervil Chrysanthemum, edible-leaved & garland Cilantro Corn salad Cress, garden & upland Dandelion Dock Endive Lettuce (head and leaf) including Cos (Romaine) & Butterhead varieties (both field and greenhouse) Parsley Purslane, garden and winter Radicchio Swiss chard (including all cultivars and/or hybrids of these)	Powdery Mildew (Erysiphe spp.) Black Spot/ Alternaria leaf spot (Alternaria spp.)	6 to 8 fl oz/A (0.19-0.25 lbs ai/A)	Apply as a foliar spray in sufficient water to provide thorough coverage of the foliage. Begin applications prior to disease development or at the first indication of the disease. Use higher specified rates for heavier infestations and under conditions in which thorough coverage is more difficult.  A single repeat application can be made no less than 14 days after the first application. Use a minimum of 10 gallons per acre spray volume for ground applications.  Use a minimum of 2 gallons per acre spray volume for aerial applications.

- PHI: Applications can be made up to and including day of harvest.
- Do not apply more than 16 fl oz (0.5 lb ai) per acre per year.
- Maximum of 2 applications per acre per year.

#### PAPAYAS AND SPECIFIED TROPICAL FRUIT

CROP	DISEASE	Use Rate per Acre	COMMENTS
Canistel Mango Papayas Sapodilla Sapote, black Sapote, mammey Star apple	Black Spot (Asperisporium caricae)  Powdery Mildew (Oidium caricae)	8 fl oz/A (0.25 lbs ai/A)	Apply as a foliar spray in sufficient water and use appropriate surfactant to provide thorough coverage of the foliage. Begin application prior to disease development or at the first indication of the disease. Use a minimum of 75 gallons per acre spray volume for ground applications.  Use a minimum of 2 gallons of water per acre for aerial applications.

#### **RESTRICTIONS:**

- PHI: application can be made up to and including day of harvest.
- Do not apply more than 8 fl oz (0.25 lb ai) per acre per year.
- Maximum of 1 application per acre per year.

#### **PINEAPPLES**

Use TRIONIC 4SC fungicide as a pre-plant seed piece material treatment only.

CROP	DISEASE	Use Rate per 100 gallons	COMMENTS
Pineapples (pre-plant seed piece material treatment)	Butt Rot (Chalara paradoxa)	4 to 8 fl oz/100 gal (0.125-0.25 lbs ai/100 gal)	Depending on disease pressure, apply 4 to 8 fl oz in 100 gallons of water as a planting material dip treatment. Freshly removed seed material used for immediate planting should be immersed immediately for thorough wetting and coverage. Use the higher specified label rate under moderate to severe disease pressure.

#### **RESTRICTIONS:**

• Do not use treated green forage or green fodder for animal feed.

## STRAWBERRIES (LOW-GROWING BERRIES EXCEPT CRANBERRIES, CROP SUBGROUP 13-07G)

TRIONIC 4SC fungicide can be tank mixed with other materials registered for use on strawberries. Apply tank mixtures in accordance with all applicable label directions.

CROP	DISEASE	Use Rate Per Acre	COMMENTS
Bearberry Bilberry Blueberry, lowbush Cloudberry Lingonberry Muntries Partridgeberry Strawberry cultivars, varieties and/or hybrids of these	Powdery Mildew (Sphaerotheca macularis f. sp. fragariae)	4 to 8 fl oz/A (0.125-0.250 lbs ai/A)	Protection of leaves before bloom will reduce inseason disease pressure and result in greater control of flower and fruit infections. Initiate applications at the first sign of powdery mildew.  Apply in sufficient water to ensure complete and thorough coverage of foliage, flowers and fruit.  Continue applications no less than 14 day intervals while conditions favor disease development.  Use higher specified application rates and shorter spray intervals on more susceptible varieties and/or under higher disease pressure.  Use a minimum of 75 gallons per acre spray volume for ground applications.  Use a minimum of 2 gallons of water per acre for aerial applications.

- PHI: 1 day of harvest
- Do not apply more than 32 fl oz (1.0 lbs ai) per acre per year
- Maximum of 4 applications per acre per year.

#### **APPLICATION INSTRUCTIONS**

## ORNAMENTAL, GREENHOUSE VEGETABLES, NON-BEARING TREES/SCRUBS, CHRISTMAS TREES, INTERIORSCAPES

TRIONIC 4SC fungicide provides control of specified diseases in ornamental plants, greenhouse grown vegetables (tomato and cucumber), and specified non-bearing fruit trees/shrubs that will not bear fruit for a minimum of 12 months. Areas for use include:

Greenhouses and shadehouses

Nurseries, including Christmas tree/conifer plantations

Interiorscapes

Applications can be made via foliar spray, soil drench, cutting soak and chemigation, using high and low volume hand guns, overhead booms/sprinklers and backpack spray applicators.

#### ORNAMENTALS AND NON-BEARING FRUIT TREES/SHRUBS

#### **FOLIAR SPRAYS:**

Use Rates: 0.5 to 1 gallons of spray mixture per 200 sq ft of area or 100 to 200 gallons per acre.

Spray volume should provide thorough coverage of the foliage just prior to the point of drip. Required spray volumes will vary depending on the size and spacing of the plant.

#### **SOIL DRENCHES:**

For soil drench applications, the application should be made to plants which have been well watered one day prior to application. See use table below for use rates of TRIONIC 4SC fungicide. For optimum results, irrigation with additional water should not be made until 24 hours after application.

Restrictions in Nassau and Suffolk Counties of New York, soil drench application is limited to container grown ornamentals only. Do not apply as a soil drench to field grown or outdoor grown ornamentals in Nassau and Suffolk Counties of New York.

#### FOR BED AND BENCH GROWN PLANTS

Soil Depth to be Drenched	Spray Volume Coverage for TRIONIC 4SC fungicide Drench Mix		
(inches)	fl oz/sq ft	sq ft/100 gal	
2 inches or less	16 fl oz/sq ft	800 sq ft/100 gal	
3 inches	24 fl oz/sq ft	530 sq ft/100 gal	
4 inches or more	32 fl oz/sq ft	400 sq ft/100 gal	

### FOR CONTAINER GROWN PLANTS

Pot Diameter (inches)	Minimum Drench Spray Volume (fl oz/pot)
4 inches	1.5 fl oz/pot
5 inches	3.0 fl oz/pot
6 inches	4.0 fl oz/pot
8 inches	7.0 fl oz/pot
10 inches	13.0 fl oz/pot
12 inches	18.0 fl oz/pot

### **USE AND RATE OF APPLICATION - ORNAMENTALS**

FOLIAR DISEASES	FLUID OUNCES PER 100 GAL (TEASPOON PER GALLON)	APPLICATION INSTRUCTIONS
Aerial Blight (Rhizoctonia solani)	4 - 8  fl oz/100  gal (1/4 - $\frac{1}{2} \text{ tsp/gal}$ )	For optimum disease control, initial applications should be made prior to, or at very first sign of disease.
Botrytis Blight (Botrytis cinerea)	(0.125-0.25 lbs ai/100	Repeat applications can be made no less than 14 day intervals.
Leaf Spot (Alternaria spp.)	gal)	Use higher specified rates for initial applications under higher disease pressure.
(Exserohilum rostratum) (Helminthosporium rostratum)		Low rates can be used for subsequent applications and preventative sprays.
Petiole Rot (Myrothecium roridum)		For powdery mildew control:
Powdery Mildew (Erysiphe cichoracearum) (Erysiphe lagerstromiae) (Oidium spp.) (Podospaera spp.) (Sphaerotheca pannosa)	4 –8 fl oz/100 gal (1/4 – 1/2 tsp/gal) (0.125-0.25 lbs ai/100 gal)	Use 4 to 8 fl oz/100 gal for subsequent applications and preventative sprays.
Rust (Puccinia spp.) (Gymnosporangium spp.)	2 – 8 fl oz/100 gal (1/8 – ½ tsp/gal) (0.0625-0.25 lbs ai/100 gal)	
Scab (Venturia spp.)	4 – 8 fl oz/100 gal (1/4 – ½ tsp/gal) (0.125-0.25 lbs ai/100 gal)	

SOIL BORNE DISEASES	FLUID OUNCES PER 100 GAL (TEASPOON PER GALLON)	APPLICATION INSTRUCTIONS
Black Root Rot (Thielaviopsis sp.)	2 – 8 fl oz/100 gal (1/8 – ½ tsp/gal) (0.0625-0.25 lbs ai/100 gal)	For soil drench applications, apply at 2 to 4 week intervals as needed. Use higher specified rate under heavy disease pressure.
Cylindrocladium Root Rot and Petiole Rot (Cylindroclaum spathiphylli)	4 – 8 fl oz/100 gal (1/4 – ½ tsp/gal) (0.125-0.25 lbs ai/100 gal)	For soil drench applications, apply at 2 to 4 week intervals as needed. Use higher specified rate under heavier disease pressure which can occur under warmer conditions.  NOTE: Applications may be made as a heavy spray over the foliage however, the volume applied should be the same as that required for the soil drench to insure adequate soil penetration.
Cylindrocladium Root Rot; Wilt and Crown Canker (Cylindrocladium scoparium) (Cylindrocladium theae)	12 – 16 fl oz/100 gal (3/4 – 1 tsp/gal) (0.375-0.50 lbs ai/100 gal)	FOR PLANTS BEING PROPAGATED: The cutting soak plus soil drench application may be necessary to provide control, therefore treatment should consist of both methods of application. No more than 2 applications total can be made for applications that are more than 8 fl. oz.  Pre-stick cutting soak: Soak cuttings for 10 minutes. Slight agitation of the mixture is required to maintain proper suspension.
	6 - 8  fl oz/100 gal $(3/8 - \frac{1}{2} \text{ tsp/gal})$ (0.19-0.25  lbs ai/100 gal)	<b>Soil Drench:</b> The higher specified rate should be used under heavier disease pressure.  Apply additional drenches at 2 to 3 week intervals as needed. Normally 2 to 4 applications are sufficient. <b>NOTE:</b> Do not exceed 8 fl oz/600 sq ft of bed or bench area as injury and/or inhibition of rooting may occur.
	6 – 12 fl oz/100 gal (3/8 – <sup>3</sup> / <sub>4</sub> tsp/gal) (0.19-0.375 lbs ai/100 gal)	FOR PLANTS WITH ESTABLISHED ROOT SYSTEMS: Soil Drench: Use higher specified rate under heavier disease pressure. Lower rates can be used in subsequent applications. An additional drench may be applied at 2 to 4 week intervals. No more than 2 applications can be made at applications higher than 8 fl. oz.
Fusarium wilt (Fusarium spp.)	4 – 8 fl oz/100 gal (1/4 – ½ tsp/gal) (0.125-0.25 lbs ai/100 gal)	For soil drench applications, apply on 14 day intervals as needed. Use higher specified rate under heavy disease pressure.
Root Rot (Rhizoctonia solani)	4-8  fl oz/100 gal $(1/4-\frac{1}{2} \text{ tsp/gal})$ (0.125-0.25  lbs ai/100 gal)	For soil drench applications, apply at 2 to 4 week intervals as needed. Use higher specified rate under heavy disease pressure.

- Do not apply more than 32 fl oz (1.0 lb ai) per acre per year.
- Do not exceed maximum application rate listed per disease listed in the above table.
- Do not exceed a spray volume of 200 gallons per acre.
- Maximum of 4 applications per crop per year.

## GREENHOUSE GROWN VEGETABLES (TOMATO AND CUCUMBER) FOLIAR SPRAYS:

Use Rates: 0.5 to 1 gallon of spray mixture to cover 200 sq ft of area or 100 to 200 gallons per acre.

Spray volume should provide thorough coverage of the foliage just prior to the point of drip. Required spray volumes will vary depending on the size and spacing of the plant.

#### **USE AND RATE OF APPLICATION -**

#### **GREENHOUSE GROWN VEGETABLES (TOMATO AND CUCUMBER)**

VEGETABLE CROP	DISEASE	FLUID OUNCES PER 100 GAL	APPLICATION INSTRUCTIONS
Cucumber (including greenhouse transplants)  Tomato (including greenhouse transplants)	Powdery Mildew	2 to 4 fl oz/100 gal (0.0625-0.125 lbs ai/100 gal)	Apply only as a foliar spray. Begin applications at first sign of disease development. Use the higher specified rate for initial applications under existing disease pressure. The lower rate can be used for subsequent applications and preventative sprays. Use higher spray volumes for large plants and dense crop canopies. A non-ionic surfactant can be included in the tank mixture. Retreatment interval is 7 to 14 days.

#### **RESTRICTIONS:**

- 100 gallons of water will treat  $\sim 20,000$  to 40,000 sq ft.
- PHI: 1 day before harvest
- Do not apply more than 16 fl oz per acre (0.50 lb ai/A) per cropping system.
- For use in commercial greenhouse production only.
- Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.
- Maximum of 4 applications per crop per year.

#### **PLANT TOLERANCE:**

Some cultivars of impatient have shown a sensitivity to applications of TRIONIC 4SC.

#### Restrictions:

- DO NOT USE ON IMPATIENT PLUGS.
- ON IMPATIENT TRANSPLANTS, DO NOT EXCEED 2 FL OZ/100 GAL.
- When used on bedding plant plugs, do not exceed 2 fl oz/100 gal water.

Neither the manufacturer nor the seller has determined whether or not TRIONIC 4SC fungicide can be used safely on all ornamental plants. Prior to any large scale application, the user should determine the safety of TRIONIC 4SC fungicide by testing a small number of the type of plants to be treated at the specified rates. Observe the treated plants for symptoms of phytotoxicity which may occur as foliage burn or stunting or inhibition of rooting for plants being propagated. This may take up to two months for species that do not root readily.

## USE DIRECTIONS FOR CHEMIGATION FOR ORNAMENTALS AND GREENHOUSE GROWN VEGETABLES ONLY:

In addition to the above use rates the following restrictions must be observed when using this product in any type of irrigation system:

Apply this product only through the following systems:

1) Overhead sprinklers such as impact or micro-sprinklers, 2) Micro-irrigation such as spaghetti-tube or individual tube irrigation, 3) Mist-type irrigation such as fog systems, 4) Hand-held calibrated irrigation equipment such as the hand-held wand with injector.

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

Crop injury or lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have any 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.

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 backflow.

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 decrease 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.

#### SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

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 of the year.

Chemigation systems connected to public water systems must contain a functional, reduced pressure zone, backflow 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 systems 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 of 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 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, or in cases where there is no water pump, when the water pressure decreases to the point where the 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.

## IMPORTANT INFORMATION READ BEFORE USING PRODUCT

#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE**: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of United Phosphorus, Inc. and Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

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Rev.10/17/2016