

GROUP 28 INSECTICIDE

# **TETRINO**

For foliar and systemic control of listed insect pests infesting turfgrass including sod farms

**COMMERCIAL** 

**INSECTICIDE** 

**SUSPENSION** 

ACTIVE INGREDIENT: Tetraniliprole ........ 43 g/L

Contains 1,2 benzisothiazolin-3-one at 0.023% and 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0009% and 2-methyl-4-isothiazolin-3-one at 0.0003% as preservatives.

REGISTRATION NO. 33714 PEST CONTROL PRODUCTS ACT

READ THE LABEL BEFORE USING

KEEP OUT OF REACH OF CHILDREN

NET CONTENTS: 0.5 L to Bulk

Bayer CropScience Inc. 200-160 Quarry Park Blvd. SE Calgary, Alberta T2C 3G3 www.cropscience.bayer.ca

Product Information: 1-888-283-6847

In case of spills, poisoning or fire, telephone emergency response number 1-800-334-7577 (24 hours a day).

**NOTICE TO USER:** This control product is to be used only in accordance with the directions on this label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

### PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN.

Avoid contact with skin or 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.

DO NOT enter or allow worker entry into treated sod farms during the restricted entry interval (REI) of 12 hours. For all other treated areas (such as residential areas, golf courses, parks, playgrounds, etc.), DO NOT enter or allow entry into treated areas until sprays have dried.

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

DO NOT apply by aerial application equipment.

PROTECTIVE CLOTHING AND EQUIPMENT: Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab.Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Users should: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment immediately after handing this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### FIRST AID:

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

**If swallowed:** Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control centre or doctor for treatment advice.

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

### **TOXICOLOGICAL INFORMATION:**

No specific antidote is available. Treat the patient symptomatically.

### **ENVIRONMENTAL PRECAUTIONS:**

Toxic to aquatic organisms.

Toxic to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland

Toxic to bees.

DO NOT apply this product or allow it to drift to blooming plants or weeds.

Follow specific use directions.

Minimize spray drift to reduce harmful effects on bees in habitats close to the application site.

To further minimize exposure to pollinators, refer to the complete guidance "Protecting Pollinators during Pesticide Spraying – Best Management Practices" on the Health Canada website (www.canada.ca/pollinators).

Tetraniliprole is persistent in soils and aquatic environment.

This product demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of tetraniliprole in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body.

#### STORAGE:

To prevent contamination store this product away from food or feed.

### **DISPOSAL:**

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

- 1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

**Disposal of Unused, Unwanted Product:** For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for cleanup of spills.

Tetrino is a registered trademark of Bayer CropScience.

200319



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#### **GENERAL INFORMATION**

## **Section 1: Notices**

NOTICE TO USER: This control product is to be used only in accordance with the directions on this label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

### Section 2: The Product

TETRINO is intended for foliar and systemic management of listed insect pests infesting landscape and recreational turfgrass. TETRINO can be used as directed on turfgrass in sites such as home lawns, business and office complexes, shopping complexes, multifamily residential complexes, golf courses, airports, cemeteries, parks, playgrounds, athletic fields, and sod farms.

### **SAFETY AND HANDLING**

## Section 3: Precautions, Protective Clothing and Equipment

### **PRECAUTIONS**

### KEEP OUT OF REACH OF CHILDREN.

Avoid contact with skin or 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.

DO NOT enter or allow worker entry into treated sod farms during the restricted entry interval (REI) of 12 hours. For all other treated areas (such as residential areas, golf courses, parks, playgrounds, etc.), DO NOT enter or allow entry into treated areas until sprays have dried.

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

DO NOT apply by aerial application equipment.

## PROTECTIVE CLOTHING AND EQUIPMENT:

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab.Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

## Users should:

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

## Section 4: First Aid and Toxicological Information

### FIRST AID

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

If swallowed	Call a poison control centre or doctor immediately for treatment advice.
	Have person sip a glass of water if able to swallow.
	Do not induce vomiting unless told to do so by a poison control centre or doctor.
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### Section 5: ENVIRONMENTAL PRECAUTIONS

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Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body.

## Section 6: STORAGE

To prevent contamination store this product away from food or feed.

### Section 7: DISPOSAL

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### **DIRECTIONS FOR USE**

## **Section 8: Pests, Application Rates and Methods**

TETRINO can be used against soil inhabiting pests of turfgrass, including European chafer, northern masked chafer, Asiatic garden beetle, Japanese beetle, oriental beetle, June beetle (*Phyllophaga* spp.), annual bluegrass weevil, cutworm, sod webworm, chinch bug and billbug.

The active ingredient in TETRINO provides control or suppression of listed pests when applications are made preceding or during the egg laying period. Use sufficient irrigation, or rainfall, to move the active ingredient through the thatch. The treated turf area must be in a condition such that rainfall or irrigation will penetrate vertically in the soil profile. Do not apply when turfgrass areas are waterlogged or the soil is saturated with water. Adequate distribution of the active ingredient cannot be achieved when these conditions exist.

When applied as a foliar spray following label instructions, TETRINO will provide control or suppression of insect species listed below. Do not apply through any irrigation system.

PEST	RATE (mL/100 m <sup>2</sup> )	MINIMUM APPLICATION INTERVAL	Comment
Larvae of European chafer, northern masked chafer, Asiatic garden beetle (suppression), Japanese beetle, June beetle ( <i>Phyllophaga</i> spp.), oriental beetle	23.2	4 weeks	Optimal control treat from peak adult flight through egg hatch
Cutworms, sod webworms	11.6 – 23.2	4 weeks	Delay watering and mowing for 24 hours after application
Billbugs	11.6 – 23.2	4 weeks	Apply when overwintering adults are first observed
Annual bluegrass weevil	11.6 – 23.2	4 weeks	Preventive control apply when early instar larvae infest turf
Chinch bugs	11.6 – 23.2	4 weeks	Apply when chinch bugs first observed

- Maximum TETRINO allowed per year: 4.65 L (200 g a.i./ha).
- DO NOT allow this product to contact plants in bloom. Actively manage flowering weeds for 10 days following application using standard cultural practices such as mowing and/or herbicide treatment.

## **Section 9: Application Instructions and Limitations**

Apply TETRINO in sufficient water to provide adequate distribution in the treated area. The use of accurately calibrated equipment normally used for the application of turfgrass insecticides is required. Use equipment which will produce a uniform droplet spray, using a low pressure setting to eliminate off target drift. Check calibration periodically to ensure that equipment is working properly.

TETRINO mixes readily with water and may be used in many types of application equipment. Mix product with the required amount of water and apply as desired dependent upon the selected use pattern.

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

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

DO NOT apply by aerial application equipment.

DO NOT allow this product to contact plants in bloom. Actively manage flowering weeds for 10 days following application using standard cultural practices such as mowing and/or herbicide treatment.

### **Buffer Zones:**

Spot treatments using hand-held equipment DO NOT require a buffer zone. The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of application	Crop	Buffer Zones (metres) Required for the Protection of:			
		Freshwater Ha	Terrestrial		
		Less than 1 m	Greater than 1 m	Habitat	
Field sprayer	Turf	15	5	0	

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

The buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the Pest Management Regulatory Agency web site.

<u>Field sprayer application:</u> DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than

the American Society of Agricultural Engineers (ASAE S572.1) fine classification. Boom height must be 60 cm or less above the crop or ground.

## **Section 10: Mixing Instructions**

If TETRINO is to be tank mixed with other pesticides, compatibility should be tested prior to mixing.

### COMPATIBILITY

TETRINO is physically and biologically compatible with many registered pesticides and fertilizers or micronutrients. When considering mixing TETRINO with other pesticides, or other additives, first contact your supplier for advice. For further information, contact your local Bayer CropScience Representative. If you have no experience with the combination you are considering, you should conduct a test to determine physical compatibility.

### ORDER OF MIXING

TETRINO may be used with other recommended pesticides, fertilizers, and micronutrients. The proper mixing procedure for TETRINO alone or in tank mix combinations with other pesticides is:

- 1) Fill the spray tank 1/4 to 1/3 full with clean water;
- 2) While recirculating and with the agitator running, add any products in PVA bags (See Note\*). Allow time for thorough mixing;
- 3) Continue to fill spray tank with water until 1/2 full;
- 4) Add any wettable powder (WP), water dispersible granule (WG/WDG) products, or "flowable" (FL/SC) type products;
- 5) Allow enough time for thorough mixing of each product added to tank;
- 6) Add required amount of TETRINO and;
- 7) If applicable, add any remaining tank mix components: emulsifiable concentrates (EC), fertilizers and micronutrients.
- 8) Fill spray tank to desired level and maintain constant agitation to ensure uniformity of spray mixture.

\*NOTE: Do not use PVA packets in a tank mix with products that contain boron or release free chlorine. The resultant reaction of PVA and boron or free chlorine is a plastic that is not soluble in water or solvents.

### TANK MIX RECOMMENDATIONS

Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures.

## **Section 11: Resistance Management Recommendations**

For resistance management, please note that TETRINO contains a Group 28 insecticide. Any insect population may contain individuals naturally resistant to TETRINO and other Group 28 insecticides. The resistant individuals may dominate the insect population if this group of insecticides is used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance:

- Where possible, rotate the use of TETRINO or other Group 28 insecticides with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that is effective on the target pest when such use is permitted.
- Insecticide use should be based on an IPM program that includes scouting and record keeping, and considers cultural, biological and other chemical control practices.
- Before spraying TETRINO correctly identify the pest and ensure economic and agronomic thresholds are met as recommended by local provincial or IPM specialists.
- Monitor treated pest populations for resistance development.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Bayer CropScience Inc. at 1-888-283-6847 or at www.bayercropscience.ca.

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