

2015-0340  
2016-10-25

**CIVITAS TURF DEFENSE™ Pre-M1xed**

Emulsifiable Concentrate

COMMERCIAL

GUARANTEE: .....MINERAL OIL 88.8%

REG. NO. 32444 P.C.P. ACT

READ THE LABEL BEFORE USING  
KEEP OUT OF REACH OF CHILDREN

NET CONTENTS: 1 L - 1050 L

Intelligro  
2310 Lakeshore Road West  
MISSISSAUGA, ONTARIO, L5J 1K2 CANADA  
403-296-3000

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Patent(s): [www.suncor.com/patents](http://www.suncor.com/patents)

## PRODUCT INFORMATION

**CIVITAS TURF DEFENSE Pre-M1xed** is a broad spectrum fungicide for use treating turfgrass on golf course greens, tees, fairways & roughs, as well as, sports & athletic fields.

**CIVITAS TURF DEFENSE Pre-M1xed** is used as a preventative treatment for the control or suppression of many important diseases on turf. **CIVITAS TURF DEFENSE Pre-M1xed** acts by providing a barrier that prevents fungal spores from germinating or penetrating host plant cells, and by activating a natural defense pathway within the plant called Induced Systemic Resistance (ISR).

## DIRECTIONS FOR USE

**CIVITAS TURF DEFENSE Pre-M1xed** may be applied with all types of spray equipment commonly used for making ground applications. For ground applications, apply **CIVITAS TURF DEFENSE Pre-M1xed** in sufficient water volume for adequate coverage. All applications should be made according to the use directions that follow.

Field sprayer application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification. Boom height must be 60 cm or less above the crop or ground.

### BUFFER ZONES

Use of the following spray methods or equipment DO NOT require a buffer zone: hand-held or backpack sprayer and spot treatment.

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 Required for the Protection of:			
		Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:	
		Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m
Field Spray*	Golf course turf and sports & athletic fields	5 m	3 m	1 m	1 m

\* For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the turf canopy, the labeled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are

fitted with cone-shaped shields that are no more than 30 cm above the turf canopy, the labeled buffer zone can be reduced by 30%.

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.

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 air.

## **INTEGRATED PEST MANAGEMENT**

This product can be used in resistance management strategies or in integrated pest management (IPM) programs. **CIVITAS TURF DEFENSE Pre-M1xed** is effective for use in programs that attempt to minimize disease resistance as there are no known resistance risks associated with its' use.

## **APPLICATION PROCEDURES**

### **Prior to Mixing**

- Use only in equipment with sufficient agitation to keep contents thoroughly mixed and provide sufficient agitation during mixing and application to maintain a uniform emulsion.
- Be sure tank is clean; make certain that the tank is free of sulphur residues.
- Carefully calculate the amount of **CIVITAS TURF DEFENSE Pre-M1xed** needed before mixing. Refer to **APPLICATION RATES** for controlling specific pests.
- **CIVITAS TURF DEFENSE Pre-M1xed MUST BE SHAKEN WELL IMMEDIATELY BEFORE USE.** Phase separation can occur during storage. Shake firmly for 30 seconds, or until the liquid has a uniform consistency and colour.

### **Mixing Directions**

- With agitator running, start filling the tank until it gets about half full.
- **CIVITAS TURF DEFENSE Pre-M1xed** is an Emulsified Concentrate and should be added after Wettable Soluble Powders, Wettable Powders, Water Dispersible Granular and Liquid Flowables are added to the tank.
- Add **CIVITAS TURF DEFENSE Pre-M1xed** to the mixture. An initial green bloom indicates proper emulsification, and can be applied to the turf. Do not use this product if it does not emulsify.
- Add remaining Emulsified Concentrate and Soluble products (if applicable) and fill the tank completely with water.
- Maintain agitation during mixing and application.
- Prepare only enough spray mix for the current day's use. Do not store spray mix.

**Application Instructions**

- **CIVITAS TURF DEFENSE Pre-M1xed should only be applied to non-dormant, healthy turf.**
- **CIVITAS TURF DEFENSE Pre-M1xed** should be applied 7-14 days before onset of disease, turf dormancy, biotic or abiotic stressors.
- Use the highest rate when disease pressure is high.
- On golf course greens, use application rates toward the lower end of the specified range.
- **CIVITAS TURF DEFENSE Pre-M1xed** may be applied using the types of spray equipment commonly employed for ground applications.
- Apply at 4-20 Litres of total spray volume per 100 m<sup>2</sup>.
- Thorough coverage will provide the best results, use of flat fan or air induction nozzles are suggested.
- Protect porous surfaces and objects from overspray to avoid discolouration. Clean up any spills immediately with warm water and soap to help avoid persistent staining.

**APPLICATION RATES**

Disease Controlled	Application			Comments
	CIVITAS TURF DEFENSE Pre-M1xed (per 100 sq. metres)	Water (per 100 sq. metres)	Interval (Days)	
Anthracnose ( <i>Colletotrichum cereale</i> )	255-489 mL	4-20 Litres	14	Apply as a preventative treatment or when conditions are favorable for disease development.
Brown patch ( <i>Rhizoctonia solani</i> )	287-574 mL	4-20 Litres	14	
Dollar spot ( <i>Sclerotinia homoeocarpa</i> )	266-531 mL	4-20 Litres	14	
Spring leaf spot ( <i>Drechslera poae</i> )				

Grey snow mould ( <i>Typhula ishkariensis</i> , <i>Typhula incarnata</i> )  (Suppression)	701-988 mL  (for single application)	4-20 Litres	N/A	Make a single high rate or 2 or more applications at low rate spaced 14 days apart in late fall before snow cover.
Pink snow mould ( <i>Microdochium nivale</i> )  (Suppression)	351-489 mL  (for multiple applications)	4-20 Litres	14	

Do not apply more than 7 L of **CIVITAS TURF DEFENSE Pre-M1xed**/100m<sup>2</sup>/year.

This product should be tested on a small area of turf prior to broad application because short cut turf may be more susceptible to disease and phytotoxicity.

Avoid spraying during or immediately prior to hot or freezing weather, rain or other unsuitable conditions; avoid over spraying or double spraying. Plants should be sprayed only when in vigorous condition and when their moisture condition is suitable. Before using, make certain spray tank is free of sulphur residues.

## PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN. May be harmful if swallowed or inhaled. Avoid contact with eyes, skin and clothing. Minimize breathing mists or vapours. Wash exposed skin thoroughly after using.

Wear long sleeved shirt, long pants, chemical-resistant gloves (such as barrier laminate or Nitrile rubber, Neoprene rubber or Viton) and shoes plus socks during mixing, loading, application, clean-up and repair. Apply only when the potential for drift to areas of human habitation or areas of human activity, such as houses, cottages, schools, and recreational areas, is minimal. Take into consideration wind speed, wind direction, temperature, application equipment, and spray settings.

Ensure **CIVITAS TURF DEFENSE Pre-M1xed** is applied prior to line painting on sports turf and athletic fields. Do not enter or allow others to enter treated areas during the restricted-entry interval (REI) of 12 hours.

## FIRST AID

**IF SWALLOWED:** Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. 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 15–20 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.

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

### **TOXICOLOGICAL INFORMATION**

Treat symptomatically. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia.

### **ENVIRONMENTAL HAZARDS**

TOXIC to aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay. Avoid application when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

### **SPILL CONTROL**

Avoid contact. Eliminate all ignition sources. Ventilate confined spaces. Absorb with an inert material. Place in appropriate waste disposal container. Contain spill. DO NOT FLUSH TO SEWER. Check with applicable jurisdictions for specific disposal requirements of material and empty containers.

### **DISPOSAL**

#### **Recyclable Containers**

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

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

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

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

#### **Refillable Containers**

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

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

#### **Returnable Containers**

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

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

#### **NOTICE TO USER**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.