

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs

Biopesticides and Pollution Prevention Division (7511P) 1200 Pennsylvania Ave., N.W.

Washington, D.C. 20460

#### NOTICE OF PESTICIDE:

X Registration
Reregistration
(under FIFRA, as amended)

EPA Reg. Number:	Dat
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71840-14 5

Date of Issuance:

5/6/2015

Term of Issuance:

Unconditional

Name of Pesticide Product:

TRICHO PLUS<sup>™</sup> Biofungicide

Name and Address of Registrant (include ZIP Code):

BASF Corporation 26 Davis Drive

Research Triangle Park, NC 27709

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention 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 (FIFRA or the Act).

Registration is in no way to be construed as an endorsement or recommendation of this product by the U.S. Environmental Protection Agency (EPA). In order to protect health and the environment, the Administrator, on his or her 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 the 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 or registration review of your product when the EPA requires all registrants of similar products to submit such data.

Signature of Approving Official:

5/6/2015

Kimberly Nesci, Chief Microbial Pesticides Branch
Biopesticides and Pollution Prevention Division (7511P)
Office of Pesticide Programs

EPA Form 8570-6

- 2. Submit storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) data as these data requirements are not satisfied. A one-year study is required to satisfy these data requirements. You have 18 months from the date of this registration to provide these data to the EPA.
- 3. Make the following labeling change before you release this product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 71840-14."
- 4. Submit one (1) copy of the final printed labeling for the record before you release this product for shipment.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the 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 EPA 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 Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6. A stamped copy of the labeling is enclosed for your records. Please also note that the record for this product currently contains the following acceptable Confidential Statement of Formula (CSF):

Basic CSF dated 04/22/2015

If you have any questions, please contact Jeannine Kausch of my branch by phone at (703) 347-8920 or via email at kausch.jeannine@epa.gov.

Sincerely,

Kimberly Nesci, Chief

Microbial Pesticides Branch

**Biopesticides and Pollution Prevention** 

Division (7511P)

Office of Pesticide Programs



# TRICHO PLUS™ Biofungicide

For use only in commercial greenhouses.

## ACCEPTED

05/06/2015

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

71840-14

#### **Active Ingredient:**

Trichoderma asperelloides strain JM41R*	5.5%
Other Ingredients:	<u>94.5%</u>
Total:	100.0%

<sup>\*</sup>Contains a minimum of 2.0 x 109 colony-forming units per gram.

**EPA Reg. No. 71840-RU** 

EPA Est. No. 67064-ZAF-001

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

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See inside for complete First Aid, Precautionary Statements, Directions For Use, **Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

Net Weight: 8.8 ounces (250 grams)

{Batch code: Located on physical container}

#### Manufactured for:

**BASF** Corporation

26 Davis Drive, Research Triangle Park, NC 27709

#### **FIRST AID**

#### 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 center or doctor for treatment advice.

#### **HOTLINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).

## **Precautionary Statements**

#### **Hazards to Humans and Domestic Animals**

**CAUTION.** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

#### Personal Protective Equipment (PPE)

#### Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants
- Shoes plus socks
- Protective eyewear

Mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95 or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

Follow the 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.

### **USER SAFETY RECOMMENDATIONS**

#### Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product.
   As soon as possible, wash thoroughly and change into clean clothing.

#### **Environmental Hazards**

Do not apply directly to water, 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 washwater or rinsate.

#### **Directions For Use**

It is a violation of federal law to use this product in a manner inconsistent with its labeling. **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 State or Tribal agency responsible for pesticide regulation.

For use only in commercial greenhouses.

#### 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 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**.

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
- Shoes plus socks
- Protective eyewear
- Waterproof gloves

#### STORAGE AND DISPOSAL

**DO NOT** contaminate water, food, or feed by storage or disposal.

#### **Pesticide Storage**

Store in a cool, dry place (at 35°F – 40°F), out of direct sunlight, and away from heat sources until used. **DO NOT** store this product near food, feed, seed, fertilizers, or other pesticides.

#### **Pesticide Disposal**

To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

#### **Container Handling**

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill container 1/4 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 if available, or puncture and dispose of in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke.

#### In Case of Emergency

In case of large-scale spill of this product, call:

CHEMTREC 1-800-424-9300
 BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

Your local doctor for immediate treatment

Your local poison control center (hospital)

• BASF Corporation 1-800-832-HELP (4357)

#### **Product Information**

This package contains **TRICHO PLUS Biofungicide**, a wettable powder (WP). The active ingredient in **TRICHO PLUS Biofungicide** is *Trichoderma asperelloides* strain JM41R, a biological agent providing management of soilborne diseases caused by organisms such as *Pythium*, *Rhizoctonia*, *Fusarium*, *Sclerotina*, and *Phytophthora* in the soil or growing media of all plants grown in greenhouses.

#### Compatibility

The active ingredient of **TRICHO PLUS Biofungicide** is a living organism and it is generally not advisable to tank-mix this with conventional chemical pesticides.

Do Not mix TRICHO PLUS Biofungicide with any other product that bears a label prohibiting such mixing. When tank mixing TRICHO PLUS Biofungicide with any other product, observe the most restrictive of the labeling limitations and precautions of all products used in mixtures.

For additional questions about chemical compatibility and **TRICHO PLUS Biofungicide**, contact your BASF representative.

Information regarding the contents and levels of metals in this product is available on the Internet at http://www.aapfco.org/metals.htm.

## **Application Instructions**

For applications in greenhouse production, **TRICHO PLUS Biofungicide** can be applied as a coarse spray, as a soil drench or by using common irrigation application systems. Regardless of the method used, **TRICHO PLUS Biofungicide** must be applied at an application rate of 0.8 ounces per (22.7 grams) per 10,000 square feet (929 square meters) of soil or growing media. For best results, make applications to moist soil or growing media, and reapply **TRICHO PLUS Biofungicide** at 21- to 28-day intervals throughout the growing cycle.

#### **Coarse Spray Applications**

Add 0.8 ounces (22.7 grams) of TRICHO PLUS Biofungicide to 3.0 fluid ounces (88.7 milliliters) of water. mix thoroughly, and allow product to hydrate for at least 20 minutes prior to further dilution. Add prepared slurry to 100 gallons (379 liters) of water, mix thoroughly, and apply resulting mixture to soil surface as a coarse spray at an application volume of 1 gallon (3.8 liters) per 100 square feet (9.3 square meters) of soil. The TRICHO PLUS Biofungicide mixture must be stirred continuously during application for the fungal spores to remain in suspension. Irrigate with 0.25-0.50 inches (0.64-1.27 centimeters) of water immediately after application to wash product into the root zone. If an application volume different than 1 gallon (3.8 liters) of resulting mixture per 100 square feet (9.3 square meters) of soil is used, the user must alter the concentration of TRICHO PLUS Biofungicide in water to maintain an application rate consistent with 0.8 ounces (22.7 grams) of TRICHO PLUS Biofungicide per 10,000 square feet (929 square meters) of soil.

#### **Soil Drench Applications**

Add 0.05 ounces (1.4 grams) of TRICHO PLUS

**Biofungicide** to 0.2 fluid ounces (5.9 milliliters) of water, mix thoroughly, and allow spores to hydrate for at least 20 minutes prior to further dilution. Add prepared slurry to 100 gallons (379 liters) of water, mix thoroughly, and apply resulting mixture to soil or growing media as a drench in a sufficient volume to thoroughly wet soil or growing media through root zone, but without allowing runoff out of the container. The **TRICHO PLUS** 

Biofungicide mixture must be stirred continuously during application for the fungal spores to remain in suspension. Drench volumes of common greenhouse containers are listed in the **Drench Volumes Table** below. Application volumes listed in the **Drench Volumes Table** are based on typical drench volumes used for applications of products in greenhouse crop production. For applications that use volumes different than those specified in the table, the user must alter the concentration of **TRICHO PLUS Biofungicide** in water to maintain an application rate consistent with 0.8 ounces (22.7 grams) of **TRICHO PLUS Biofungicide** per 10,000 square feet (929 square meters) of soil or growing media.

#### **Drench Volumes Table**

Container size (inch)	Minimum drench volume (fl oz )	Approximate number of containers treated
4	2.0	6,400
6	4.0	3,200
8	7.5	1,700
10	11.5	1,110
10 x 20 flat	29.0	440

#### **Chemigation Application Instructions**

#### **General Requirements for Chemigation Applications**

- Apply this product only through drip (trickle) or sprinkler, including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set or hand move, irrigation systems. Do not apply this product through any other type of irrigation system.
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- 3) If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- 4) Do not connect an irrigation system (including

- greenhouse systems) used for pesticide application to a public water system unless the pesticide labelprescribed safety devices for public water systems are in place.
- 5) 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.

# Specific Requirements for Chemigation Applications 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 out of the year.
- 2) 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 system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow 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.
- 4) 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.
- 5) 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.
- 6) 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.
- 7) Apply TRICHO PLUS Biofungicide at the end of the water application, and in sufficient water for adequate coverage without excessive run off. Set the metering pump to the selected label use rate. Agitate the pesticide supply tank throughout the application of TRICHO PLUS Biofungicide.
- 8) Do not apply when wind speed favors drift beyond the area intended for treatment.

# **Specific Requirements for Sprinkler Chemigation Applications**

- 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
- 3) 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.
- 4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5) 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.
- 6) 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 filled with a system interlock.
- 7) Apply TRICHO PLUS Biofungicide at the end of the water application, and in sufficient water for adequate coverage without excessive runoff. Set the metering pump to the selected label use rate. Agitate the pesticide supply tank throughout the application of TRICHO PLUS Biofungicide.
- 8) Do not apply when wind speed favors drift beyond the area intended for treatment.

# Specific Requirements for Drip (Trickle) Chemigation Applications

- 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.
- 3) 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.
- 5) 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.
- 6) 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.
- 7) Apply TRICHO PLUS Biofungicide at the end of the water application, and in sufficient water for adequate coverage without excessive runoff. Set the metering pump to the selected label use rate. Agitate the pesticide supply tank throughout the application of TRICHO PLUS Biofungicide.

# Application Instructions for All Chemigation Types

- Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues, may cause product to lose effectiveness or strength.
- Determine the treatment rates as directed in the Soil Drench and Coarse Spray Applications sections and make proper dilutions.
- 3) Following the directions in the Soil Drench and Coarse Spray Applications sections, prepare a solution in the chemical tank by first filling the tank with the specified amount of water, then add the specified amount of TRICHO PLUS Biofungicide.

#### **Important Points to Remember**

- For best results, apply TRICHO PLUS Biofungicide to moist soil or growing media. Irrigate as needed to maintain adequate soil moisture throughout the production cycle to create favorable conditions for fungal growth.
- Use prepared slurries within 12 hours.
- Avoid exposure to direct sunlight.
- Prepared slurries must be applied after the sand filter if applied through an irrigation system.
- DO NOT apply incompatible fungicides 2 weeks prior to or 4 weeks after an application of TRICHO PLUS Biofungicide.

#### **Conditions of Sale and Warranty**

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of this product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THIS PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing Conditions of Sale and Warranty that may be varied only by agreement in writing signed by a duly authorized representative of BASF. TRICHO PLUS is a trademark of BASF.

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