

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

September 30, 2015

Mr. Olav Messerschmidt Registration Agent Koppert Biological Systems, Inc. 1502 Old US 23 Howell, Michigan 48843

Subject: Labeling Notification per Pesticide Registration Notice (PRN) 98-10 – Notification of Alternate Brand Name (Trianum G) and Addition of Company Number Product Name: Trianum G Biological Fungicide EPA Registration Number: 89635-2 Application Date: May 22, 2014 OPP Decision Number: 492074

Dear Mr. Messerschmidt:

The U.S. Environmental Protection Agency (EPA) is in receipt of your application for notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Biopesticides and Pollution Prevention Division (BPPD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The labeling submitted with this application has been stamped "Notification" and will be placed in our records. The alternate brand name Trianum G has been added to the product's records. You must submit one (1) copy of the final printed labeling with the modifications.

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 the Federal Insecticide, Fungicide, and Rodenticide Act (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.

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If you have any questions, please contact Kenneth Haymes, Ph.D. of my team by phone at (703) 347-0398 or via email at haymes.kenneth@epa.gov.

Sincerely,

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Shannon Borges, Team Leader Microbial Pesticides Branch Biopesticides and Pollution Prevention Division (7511P) Office of Pesticide Programs

Enclosure: stamped Trianum G Biological Fungicide label

# **Trianum G** *Biological Fungicide*

[Alternate Brand Names: Trianum Granules Biological Fungicide; Trianum G]

# NOTIFICATION 89635-2

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

09/30/2015

# KEEP OUT OF REACH OF CHILDREN CAUTION

## 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, and then continue rinsing.

• Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information on (product, use, etc.), call the National PesticidesInformation Center at 1-800-858-7378, 6:30 AM to 4:30 PM Pacific time (PT), seven days a week. During other times, call the poison control center 1-800-222-1222.

EPA Reg. No. 89635-<u>E2</u> Net Weight: Expiration Date: - EPA Est. No. XXXXX-YY-Z Lot Number:

Manufactured by: Koppert Biological Systems, Inc. 1502 Old US 23 Howell, Michigan 48843

**Koppert Product Number 12906** 

#### Changes HihglihtedPRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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

#### PERSONAL PROTECTIVE EQUIPMENT (PPE):

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

## **USER SAFETY RECOMMENDATIONS:**

Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on 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 cleaning equipment or disposing of equipment wash water.

#### **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 workers may be in the area during application. For any requirement 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 4 hours.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated. 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 protective eyewear, coveralls, waterproof gloves, shoes, and socks.

#### **GENERAL INFORMATION**

TRIANUM G is a preventative biological fungicide for control of soilborne plant pathogens and plant root diseases. The active ingredient is a microbe, *Trichoderma harzlanum* Strain *T-22*, which when applied as an inoculant to soil, planting mixes or turf, grows onto plant roots as they develop and provides protection against plant root pathogens such as *Pythium, Rhizoctonia, Fusarium, Cylindrocladium* and *Thielaviopsis*.

TRIANUM G can be used in combination with or in rotation with other fungicides, insecticides, miticides, fertilizers or micronutrients in accordance with the more restrictive of label limitation and precautions. No label dosage rates should be exceeded. This product can not be used with any product containing a label

prohibition against such mixing. This product is not compatible with chemicals that contain the following active ingredients: benomyl, imazilil, propicanazole, febuconazole, and triflumizole. Do not apply TRIANUM G immediately before these pesticides are used. Where early season seed rot and seedling diseases are expected, use chemically treated seed or other apprppriate measures for stand establishment and TRIANUM G for root disease control.

Note: TRIANUM G contains live spores of a microbe that must be used prior to disease onset. Strain T - 22 becomes active in soil at temperatures above  $50^{\circ}$ F and is not effective while temperatures remain cold . TRIANUM G can be applied to sterilized or fumigated soil but must be applied after sterilization or fumigation.

This biological fungicide is for use in soil applications (drench, in soil furrow and potting soil) and seed treatments in or on all raw agricultural commodities, food and fiber crops, ornamentals, landscape plants, turf, and trees, including tree seedlings for transplanting into the forest.

#### **USE RESTRICTIONS**

Do not apply this product as a broadcast application. Cover applied product with soil or otherwise incorporate it into soil.

NOTE: DO NOT APPLY to sugarcane, pechay, rice, mushrooms, kiwi, tobacco, barley, oats, wheat, lemon, apple, and chickpea. Not for use on aquatic crops.

#### APPLY VIA GROUND APPLICATION ONLY.

CROPS	USE	RATE
Asparagus	In-furrow	2.5 - 6.0 lbs./ ½ acre
	Greenhouse planting mix	1.0 - 3.0 lbs./ cubic yd. soil mix
	Nursery bed applications	0.5 - 7.5 lbs./ 1000 sq. ft.
		incorporate with rake or tiller
Berries and Small Fruits:		
Blackberries, Blueberries,		
Currants, Elderberries,	In-furrow	2.5 - 6.0 lbs./ ½ acre
Gooseberries, Huckleberries,		
Loganberries, Raspberries,		
Strawberries, Grapes		
Bulb Crops: Garlic, Leeks,	In-furrow	2.5 - 6.0 lbs./ ½ acre
Onions, Shallots		
Citrus Fruits: Citrus Hybrids,		

Grapefruit, Kumquat, Limes, Oranges, Pummelos	In-furrow	2.5 - 6.0 lbs./ ½ acre
<b>Cereal Grains:</b> Buckwheat, Corn (grain, seed, sweet corn, silage, popcorn, high oil),	In-furrow	2.5 - 6.0 lbs./ ½ acre
Cucurbit Vegetables: Cucumbers, Melons, Gourds Pumpkins, Squash	In-furrow	2.5 - 6.0 lbs./ ½ acre
Flowers, Bedding Plants, and Ornamentals	In-furrow	2.5 - 6.0 lbs./ ½ acre
	Greenhouse planting mix	1.0 - 3.0 lbs./ cubic yd. soil mix
	Nursery planting mix	1.0 - 3.0 lbs./ cubic yd. soil mix
	Nursery bed applications	0.5 - 7.5 lbs./ 1000 sq. ft. incorporate with rake or tiller
<b>Fruiting Vegetables:</b> Eggplant, Sweet and Hot Peppers, Tomatillos, Tomatoes	In-furrow	2.5 - 6.0 lbs./ ½ acre
	Greenhouse planting mix	1.0 - 3.0 lbs. / cubic yd. soil mix
Herbs, Spices, and Mints	In-furrow	2.5 - 6.0 lbs./ ½ acre
	Greenhouse planting mix	1.0 - 3.0 lbs./ cubic yd. soil mix
Hydroponic Crops: Cucumbers, Tomatoes, Lettuce, Herbs and Spices	Greenhouse planting mix	1.0 - 3.0 lbs./ cubic yd. soil mix
Leafy Vegetables and Cole Crops: Arugula, Celery, Chervil, Endive, Fennel, Lettuce (head and leaf), Parsley, Radicchio, Rhubarb,	In-furrow	2.5 - 6.0 lbs./ ½ acre
	Greenhouse planting mix	1.0 - 3.0 lbs. / cubic yd. soil mix
Spinach, Swiss Chard, Broccoli, Brussels Sprouts, Cabbage, Cauliflower,	Nursery bed application	1.0 – 3.0 lbs./ 1000 sq ft
Collards, Kale, Kohlrabi, Mustard Greens, Asparagus		Incorporate with rake or tiller
Legume Vegetable (Succulent or Dried): Beans (soybeans, snap, dry), Lentils, Succulent and Dry Peas, Peanuts, Soybeans	In-furrow	2.5 - 6.0 lbs./ ½ acre
<b>Oilseed Crops:</b> Cotton, Canola, Safflower, Sunflower	In-furrow	2.5 - 6.0 lbs./ ½ acre
Pome Fruit: Pears, Quince	In-furrow	2.5 - 6.0 lbs./ ½ acre
	Greenhouse planting mix	1.0 - 3.0 lbs. / cubic yd. soil mix
	Nursery planting mix	1.0 - 3.0 lbs. / cubic yd. soil mix
	Trees and shrubs	0.2 oz – 8.0 oz / transplant hole and incorporate
Root Crops and Tuber Vegetables: Beets, Sugar beets, Carrots, Celeriac, Chicory, Horseradish, Parsnip, Radish, Rutabaga,	In-furrow	2.5 - 6.0 lbs./ ½ acre

Salsify, Turnips, Ornamental Roots and Tuber Vegetables Potatoes, Sweet Potatoes, Yams, Jerusalem Artichokes, Cassava, Ginger	Planting hole	0.2 - 8.0 oz. / transplant hole and incorporate
Shadehouse and Outdoor Nursery Crops: Deciduous Trees (Maple, Oak, etc.), Ornamentals, Grapes, Citrus, Pine	In-furrow	2.5 - 6.0 lbs./ ½ acre
	Greenhouse planting mix	1.0 - 3.0 lbs. / cubic yd. soil mix
	Nursery planting mix	1.0 - 3.0 lbs. / cubic yd. soil mix
	Trees and shrubs	0.2 - 8.0 oz. / transplant hole and incorporate
<b>Stone Fruit</b> : Apricots, Cherries, Nectarines, Peaches,	In-furrow	2.5 - 6.0 lbs./ ½ acre
Plums, Prunes	Greenhouse planting	1.0 - 3.0 lbs. / cubic yd. soil mix
	Nursery planting mix	1.0 - 3.0 lbs. / cubic yd. soil mix
	Trees and shrubs	0.2 - 8.0 oz. / transplant hole and incorporate
Tree Nuts: Almonds, Beech	In-furrow	2.5 - 6.0 lbs./ ½ acre
Nuts, Brazil Nuts, Butternuts, Cashews, Chestnuts, Filberts, Hickory Nuts, Macadamia Nuts, Pecans, Pistachios, Walnuts	Greenhouse planting mix	1.0 - 3.0 lbs. / cubic yd. soil mix
	Nursery planting mix	1.0 - 3.0 lbs. / cubic yd. soil mix
	Trees	0.2 - 8.0 oz. / transplant hole and Incorporate
<b>Turfgrass</b> : Turf, sports fields, parks, established and new preparation of golf course tees, greens, fairways and roughs, seed production, sod production	New turf seedlings	Soil incorporate 1.0 - 4.0 lbs. / 1000 sq. ft. or 40 - 120 lbs./ acre

**IN-FURROW SOIL TREATMENT:** Apply TRIANUM G from a granular applicator at the rate of 2.5 to 6 pounds per acre. For best results apply granules using a metering device, such as a Gandy applicator or equivalent, mounted to deliver granules into the furrow just behind the furrow opener. Apply in furrow at seeding or to established crops as a side dress.

**NEW TURF SEEDINGS:** Apply TRIANUM G by ground application at 1 to 4 pounds per 1000 square feet or 40-120 pounds per acre just prior to or at the time of seeding. Incorporate into the soil surface or cover with mulch along with the grass seed. Application of irrigation water will help move TRIANUM G into the soil.

**GREENHOUSE PLANTING MIX AMENDMENT**: Mix TRIANUM G with planting mixes at a rate of 1 to 3 pounds per cubic yd. (loose) mix. For best results, thoroughly incorporate TRIANUM G into planting mixes during mix preparation or at pot filling.

**NURSERY PLANTING MIX AMENDMENT:** For nursery planting mixes apply TRIANUM G at the rate of 1 to 3 pounds per cubic yd. (loose) mix. For nursery beds, incorporate at a rate of 0.5-7.5 pounds

per 1000 square feet of bed by raking or tilling. Application of irrigation water will help move TRIANUM G into the soil. If soil is fumigated or steam sterilized apply TRIANUM G after treatment.

**TREES, SHRUBS, AND OTHER TRANSPLANTS:** Apply TRIANUM G granules to the planting hole at a rate of 0.2 to 8.0 ounces and incorporate into the planting soil or soil mix.

#### STORAGE AND DISPOSAL

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

**STORAGE:** Store in original container under refrigerated conditions. Short periods at room temperatures above 75°F will not affect performance. Do not store near food or feed commodities. Do not store at temperatures above 75°F for prolonged periods. Keep container tightly closed when not in use.

**DISPOSAL:** Do not contaminate food or feed by disposal. Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility. Do not reuse container. Dispose of empty container in a sanitary landfill, or by incineration, or by open burning if allowed by state and local authorities. If burned, keep out of smoke.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into the application equipment by shaking and tapping sides and bottom to loosen clinging particles, then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration.

**NOTICE TO BUYER AND SELLER**: Seller warrants that this product conforms to the description on the label and is reasonably fit for the purposes stated on the label when used and stored in accordance with directions under normal conditions of use. To the extent permitted by state law, this warranty does not extend to use of this product contrary to label directions or under conditions not reasonably foreseeable by the Seller, and Buyer and User assume the risk of any such use. To the extent permitted by state law, Seller disclaims all other warranties express or implied, including any warranty of fitness or merchantability. To the extent permitted by state law, Seller shall not be liable for consequential, special or indirect damages resulting from use or handling of this product and Seller's sole liability and Buyer's and User's exclusive remedy shall be .limited to refund of the purchase price. This product is sold only for uses stated on its label. No express or implied license is granted to use or sell this product under any patent in any country except as specified.