



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

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

September 28, 2022

Michael Cordaro
Regulatory Manager
BioWorks, Inc.
100 Rawson Rd. Suite 205
Victor, NY 14564

Subject: Labeling Notification per Pesticide Registration Notice (PRN) 98-10 – Add Alternate Brand Names
Product Name: T-22 WP Biological Fungicide
EPA Registration Number: 68539-4
EPA Receipt Date: 08/18/2022
Action Case Number: 00386253

Dear Mr. Cordaro:

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 alternate brand names, T-22 Planter Box and T-22 Planter Box Biological Fungicide have 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 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 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 EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to EPA's Office of Enforcement and Compliance Assurance.

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If you have any questions, please contact Jennifer Odom-Douglas via email at odomdouglas.jennifer@epa.gov.

Sincerely,

A handwritten signature in cursive script that reads "Alexandra Boukedes".

Alexandra Boukedes, Product Manager 92
Microbial Pesticides Branch
Biopesticides and Pollution
Prevention Division (7511M)
Office of Pesticide Programs

[Text in brackets [] indicates optional language or language intended for explanatory purposes to facilitate label review. Thus, this language will often not appear on final printed labeling. Also, pages 1, 2, 17, and 32 are for clarifying and delineating sub-labels and will not appear on final printed labeling.]

T-22 WP

Biological Fungicide

[Alternate Brand Names: PlantShield® HC Biological Fungicide; T-22[□] HC Biological Fungicide; RootShield® Home and Garden Biological Fungicide; Root Guardian; RootShield® Seed Treatment; RootShield® Seed Treatment Biological Fungicide; RootShield® AG; RootShield® AG Biological Fungicide, T-22 Planter Box, "T-22 Planter Box Biological Fungicide"]

[Optional Marketing Claim: Wettable Powder Formulation]

Sub-Label A: Agricultural/Commercial Use (packages greater than 1 lb)

Sub-Label B: Agricultural/Commercial Use (packages 1 lb or less)

Sub-Label C: Residential Use (Home and Garden Use)

NOTIFICATION

68539-4

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:

09/28/2022

ACTIVE INGREDIENT:

Trichoderma harzianum Rifai strain T-22* 1.15%

OTHER INGREDIENTS: 98.85%

TOTAL: 100.00%

*Contains at least 1.0×10^7 colony forming units per gram of product.

KEEP OUT OF REACH OF CHILDREN
CAUTION

EPA Reg. No.: 68539-4

EPA Est. No.: 68539-NY-001

Manufactured by: BioWorks, Inc., 100 Rawson Road, Ste. 205, Victor, NY 14564 (800) 877-9443

Net Weight: [2.63 oz or 4 oz [Residential; Home and Garden Use]]

[1 lb, 3 lb, 30 lb, or 500 lb [Agricultural]]

Lot No.: [lot codes are sticker applied to the front panel of every label on every product container]

Expiration Date: _____

**T-22 WP
BIOLOGICAL FUNGICIDE**

SUB-LABEL A

**For Agricultural/Commercial Use
(packages greater than 1 lb)**

T-22 WP

Biological Fungicide

[Alternate Brand Names: PlantShield® HC Biological Fungicide; T-22® HC Biological Fungicide; RootShield® Home and Garden Biological Fungicide; Root Guardian; RootShield® Seed Treatment; RootShield® Seed Treatment Biological Fungicide; RootShield® AG; RootShield® AG Biological Fungicide]

For Organic Production][For Use in Organic Production][Can be used in organic production]][OMRI Listed™ (Logo)]



[Optional Marketing Claim: Wettable Powder Formulation]

ACTIVE INGREDIENT:

Trichoderma harzianum Rifai strain T-22* 1.15%

OTHER INGREDIENTS: 98.85%

TOTAL: 100.00%

*Contains at least 1.0×10^7 colony forming units per gram of product.

KEEP OUT OF REACH OF CHILDREN

CAUTION

[See attached label booklet for First Aid, Precautionary Statements, Storage and Disposal Instructions and Directions for Use]

[See foldout panel for First Aid]

[See foldout panel for Directions for Use]

| FIRST AID | |
|-------------------------------|---|
| If on skin or clothing | <ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15 – 20 minutes.• Call a poison control center or doctor for treatment advice. |

| | |
|--|--|
| If in eyes | <ul style="list-style-type: none"> • 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. |
| If inhaled | <ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for treatment advice. |
| If swallowed | <ul style="list-style-type: none"> • Call a poison control center 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 center or doctor. • Do not give anything by mouth to an unconscious person. |
| <p>HOTLINE NUMBER: Have the product container or label with you when calling a poison control center or doctor or going for treatment. For general information on this product, contact the National Pesticide Information Center (NPIC) at 1-800-858-7378, Monday through Friday, 8 a.m. to 12 p.m. Pacific Time, or at http://npic.orst.edu. For medical emergencies, call your poison control center at 1-800-222-1222.</p> | |

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if absorbed through skin, inhaled, or swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing dust. 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.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Protective eyewear
- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes and socks

Mixers/loaders and applicators must wear a NIOSH-approved particulate filter with any N, R, or P filter with NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

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.

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. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

For terrestrial uses: 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 disposing of equipment washwater or rinsate.

EPA Reg. No.: 68539-4

EPA Est. No.: 68539-NY-001

Manufactured by: BioWorks, Inc., 100 Rawson Road, Ste. 205, Victor, NY 14564 (800) 877-9443
www.bioworksinc.com

Net Weight: [3 lb, 30 lb, or 500 lb]

Lot No.: [lot codes are sticker applied to the front panel of every label on every product container]

Expiration Date: _____

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.

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 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 or dusts have settled.

PRODUCT INFORMATION

T-22 WP Biological Fungicide (T-22 WP) is a preventative biological fungicide for control of plant diseases. The active ingredient is a microbe, *Trichoderma harzianum* Rifai strain T-22, that, when applied to seeds, transplants or other propagative material, soil or planting mixes, grows onto plant roots as they develop and provides protection against plant root pathogens such as *Pythium*, *Rhizoctonia*, *Fusarium*, *Cylindrocladium* and *Thielaviopsis*. T-22 WP can be used in combination with or in rotation with most other fungicides, insecticides, miticides, fertilizers or micronutrients in accordance with the most restrictive of label limitations and precautions. Do not exceed label dosage rates. **This product must not be tank mixed with chemicals that contain the following active ingredients: imazalil, propiconazole, tebuconazole, and triflumizole.** Do not apply T-22 WP immediately before these pesticides are used. Where early season seed rot and seedling diseases are expected, use chemically treated seed or other appropriate measures for stand establishment and T-22 WP for root disease control.

Note: T-22 WP contains live spores of a microbe that must be used prior to disease onset. T-22 WP becomes active in soil or on plants when temperatures are above 50°F and is not effective while temperatures remain cold. T-22 WP can be applied to sterilized or fumigated soil but must be applied after sterilization or fumigation.

T-22 WP is for use in soil applications (drench, in soil furrow, and potting soil), and seed treatments for all listed crops (except those mentioned below**).

USE RESTRICTIONS

****ATTENTION: DO NOT APPLY to sugarcane, pechay (bok choy), rice, mushrooms, kiwi, barley, oats, lemon, apple, and chickpea. Not for use on aquatic crops.**

APPLICATION INSTRUCTIONS

APPLY VIA GROUND APPLICATION ONLY.

CROPS ON WHICH T-22 WP MAY BE USED:

| CROP | USE | APPLICATION RATE OF T22 WP |
|--|---|---|
| Asparagus **Refer to excluded crops above table | In-furrow spray or transplant starter solution *Field chemigation | 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water |
| Berries and Small Fruits, including: Blackberries, Blueberries, Currants, Elderberries, Gooseberries, Huckleberries, Loganberries, Raspberries, Strawberries, Grapes **Refer to excluded crops above table | Cutting or bare-rooted transplant dip Greenhouse drench Nursery drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 1.0 – 3.0 lb/20 gal water or dip directly into dry powder 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/acre 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water |
| Bulb Vegetables, including: Garlic, Leeks, Onions, Shallots, Ornamental Bulbs. | Dust (pre-plant) | 0.03 – 3.0 lb/cwt bulbs or 1.0 – 3.0 lb/20 gal water |
| Cereal Grains, including: Buckwheat, Corn (grain, seed, sweet corn, silage, popcorn, high oil), Rye, Wheat, Sorghum, Millet **Refer to excluded crops above the tables | Planter box (onsite) Commercial seed treatment Field chemigation | 1.0 – 10.0 oz/cwt seed 0.0004 – 0.529 lb/cwt seed 1.0 – 32.0 oz/100 gal water |
| Citrus Fruits, including: Citrus hybrids, Grapefruit, Kumquat, Limes, Oranges, Pummelos **Refer to excluded crops above the tables | Cutting or bare-rooted transplant dip Greenhouse drench Nursery drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 1.0 – 3.0 lb/20 gal water or dip directly into dry powder 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/acre 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water |

*Not for Use in California

| CROP | USE | APPLICATION RATE OF T22 WP |
|---|--|--|
| Cucurbit Vegetables, including: Cucumbers, Melons (i.e., Chinese Waxgourd, Citron Melon, Muskmelons, or Watermelon), Gourds, Pumpkins, Squash | Planter box (onsite) Commercial seed treatment Greenhouse drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 1.0 – 10.0 oz/cwt seed 0.0141 – 0.564 oz/lb seed 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/acre 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water |
| Flowers, Bedding Plants, and Ornamentals | Cutting or bare-rooted transplant dip Commercial seed treatment Greenhouse drench Nursery soil drench Greenhouse chemigation Field chemigation | 1.0 – 3.0 lb/20 gal water or dip directly into dry powder. 0.0141 – 4.233 oz/lb. seed 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water |
| Fruiting Vegetables, including: Eggplant, Sweet and Hot Peppers, Tomatillos, Tomatoes | Commercial seed treatment Greenhouse drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 0.0564 – 4.233 oz/lb seed 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/acre 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water |
| Herbs and Spices Mints | Commercial seed treatment Greenhouse drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 0.0564 – 4.233 oz/lb seed 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/acre 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water |
| Leafy and Brassica (Cole) Leafy Vegetables, including: Arugula, Celery, Chervil, Endive, Fennel, Lettuce (head and leaf), Parsley, Radicchio, Rhubarb, Spinach, Swiss Chard, Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Collards, Kale, Kohlrabi, Mustard Greens **Refer to excluded crops above table | Cutting or bare-rooted transplant dip Commercial seed treatment Greenhouse drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 1.0 – 3.0 lb/20 gal water or dip directly into dry powder 0.0141 – 4.233 oz/lb seed 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/acre 0.1 – 1.0 oz/gal water 1.0 – 32.0 oz/100 gal water |
| Legume Vegetables (Succulent or Dried), including: Beans (soybean, snap, dry), Lentils, Peas **Refer to excluded crops above the tables | Planter box (onsite) Commercial seed treatment Field chemigation | 1.0 – 10.0 oz/cwt seed 0.0004 – 0.529 lb/cwt seed 1.0 – 32.0 oz/100 gal water |

| CROP | USE | APPLICATION RATE OF T22 WP |
|---|---|--|
| Nongrass Animal Feeds (Forage, Fodder, Straw, and Hay), including: Alfalfa, Clover, Vetch, Trefoil | Planter box (onsite) Commercial seed treatment | 1.0 – 10.0 oz/cwt seed 0.0564 – 4.233 oz/lb seed |
| Oilseeds, including: Cotton, Canola, Safflower, Sunflower | Planter box (onsite) Commercial seed treatment Field chemigation | 1.0 – 10.0 oz/cwt seed 0.0176 – 0.529 lb/cwt seed 1.0 – 32.0 oz/100 gal water |
| Peanut | Planter Box (onsite) Commercial seed treatment | 1.0 – 10.0 oz/cwt seed 0.0004 – 0.0706 lb/cwt seed |
| Pome Fruits, including: Pears, Quince **Refer to excluded crops above table | Greenhouse drench Nursery drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/acre 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water |
| Root and Tuber Vegetables, including: Beets, Sugar Beets, Carrots, Celeriac, Chicory, Horseradish, Parsnip, Radish, Rutabaga, Salsify, Turnips, Potatoes, Sweet Potatoes, Yams, Jerusalem Artichoke, Cassava, Ginger, *Ginseng | Commercial seed treatment Planter box (onsite) In-furrow spray or transplant starter solution Field chemigation | 0.0141 – 0.564 oz/lb seed 0.03 – 3.0 oz/cwt seed tubers or cut potato seed pieces or 1.0 – 3.0 oz/20 gal water 1.0 – 32.0 oz/acre 1.0 – 32.0 oz/100 gal water |
| Shadehouse and Outdoor Nursery Crops, including: Deciduous Trees (e.g., Maple, Oak), Ornamentals, Grapes, Citrus, Pine | Cutting or bare-rooted transplant dip Greenhouse drench Nursery drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 1.0 – 3.0 lb/20 gal water or dip directly into dry powder. 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/acre 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water |
| Stone Fruits, including: Apricots, Cherries, Nectarines, Peaches, Plums, Prunes | Cutting or bare-rooted transplant dip Greenhouse drench Nursery drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 1.0 – 3.0 lb/20 gal water or dip directly into dry powder. 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/acre 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water |

*Not for Use in California

| CROP | USE | APPLICATION RATE OF T22 WP |
|--|---|--|
| *Tobacco | Cutting or bare-rooted transplant dip Greenhouse drench Nursery oil drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 0.25 – 1.5 lb/20 gal water 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/acre 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water |
| Tree Nuts, including: Almonds, Beech Nuts, Brazil Nuts, Butternuts, Cashews, Chestnuts, Filberts, Hickory Nuts, Macadamia Nuts, Pecans, Pistachios, Walnuts | Cutting or bare-rooted transplant dip Greenhouse drench Nursery drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 1.0 – 3.0 lb/20 gal water or dip directly into dry powder 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/acre 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water |
| *Tropical and Subtropical Fruit Inedible Peel, including: Passionfruit, Banana, Plantain Edible Peel, including: Starfruit | Greenhouse drench Nursery drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/acre 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water |
| Turfgrass, including: Turf, Sports Fields, Parks, Established and New Preparation of Golf Course Tees, Greens, Fairways and Roughs, Seed Production, Sod Production | Planter box (onsite) Commercial seed treatment | 1.0 – 10.0 oz/cwt seed 0.0564 – 4.233 oz/lb seed |

*Not for Use in California

SEED TREATMENT FOR TRUE SEED CROPS

ONSITE APPLICATION TO SEED: For protection against root diseases, apply 1.0 – 10.0 ounces of T-22 WP/hundredweight of seed. To assure uniform application, add half the required amount of T-22 WP to half the seed in the hopper, mix with a wooden paddle, and then add the remaining seed and T-22 WP. T-22 WP can also be applied in sufficient water to coat seeds. For maximum seed protection, especially in cold soils, apply T-22 WP to commercially treated seed.

Do not use treated seed for food or feed purposes or process for oil. Treat only those seeds needed for immediate use, minimizing the interval between treatment and planting. Do not store excess treated seeds beyond planting time.

COMMERCIAL SEED TREATMENT: Apply T-22 WP as a slurry, a coating, in a pellet, or during seed priming. See tables below.

NOTE: This product does not contain dye and is not covered by an appropriate tolerance exemption, or other clearance under the Federal Food, Drug and Cosmetic Act. Therefore, to comply with 40 CFR 153.155, all seeds treated commercially with this product must be colored with an EPA-approved dye or colorant of suitable color to prevent accidental use as food for man or feed for animals.

The Federal Seed Act requires that bags containing seed treated with this product shall be labeled with the following information: “This seed has been treated with *Trichoderma harzianum* Rifai strain T-22. Do not use for food, feed or oil purposes.”

AGRICULTURAL CROPS

| Seed Size (#seeds/oz) | Grams of T-22 WP per lb of seed | Ounces of T-22 WP per lb of seed |
|--|---------------------------------|----------------------------------|
| Large (1 – 100) such as: peanuts, green & dry beans, field corn | 0.0016 – 0.32 g | 0.00006 – 0.0113 oz |
| Medium (100 – 1,000) such as: sweet corn, soybeans, sorghum | 0.08 – 2.4 g | 0.0028 – 0.0847 oz |
| Small (1,000 – 10,000) such as: cabbage, cucumbers, sugar beets | 0.4 – 16 g | 0.0141 – 0.564 oz |
| Fine (10,000 – 100,000) such as: tomatoes | 1.6 – 120 g | 0.0564 – 4.233 oz |

ORNAMENTAL CROPS

| Seed Size (#seeds/oz) | Grams of T-22 WP per lb. of seed | Ounces of T-22 WP per lb. of seed |
|--|----------------------------------|-----------------------------------|
| Small (1,000 – 10,000) such as: Echinacea, Cosmos | 0.4 – 16 g | 0.0141 – 0.564 oz |
| Fine (10,000 – 100,000) such as: Texas bluegrass, ryegrass | 1.6 – 120 g | 0.0564 – 4.23 oz |
| Very Fine (100,000 – 500,000) such as: bentgrass | 8.0 – 80 g | 0.282 – 2.82 oz |

SEED TREATMENT FOR VEGETATIVELY PROPAGATED CROPS (INCLUDING POTATOES, OTHER ROOT AND TUBER VEGETABLES, AND BULB VEGETABLES)

For planting or storage, treat at 0.03 – 3.0 oz T-22 WP to 100 lbs. (1 cwt) of bulbs, seed tubers or cut potato seed pieces. Alternatively, dip bulbs, seed tubers or cut potato seed pieces in a suspension consisting of 1.0 – 3.0 pounds of T-22 WP in 20 gallons of water.

For potatoes, apply T-22 WP with compatible chemical seed dusts. Consult your BioWorks, Inc. representative for more information. All surfaces, knives, and other equipment used to cut and plant potatoes should be thoroughly sterilized before cutting and planting and at regular intervals. The cut and treated seed

pieces may be held for a week or more at cool temperatures, 45 – 50°F, and high relative humidity to promote suberization, or they may be planted immediately.

DIP FOR CUTTINGS AND BARE-ROOTED TRANSPLANTS

Dip cuttings and bare-rooted transplants in T-22 WP dry powder or in a suspension of 1.0 – 3.0 pounds of T-22 WP in 20 gallons of water. Plant treated cuttings and bare-rooted transplants in potting mix or soil in the usual manner.

DRENCH

GREENHOUSE DRENCH: Suspend 1.0 – 32.0 ounces of T-22 WP in 100 gallons of water with agitation and apply prepared suspension as a drench to greenhouse planting mixes. For seeding flats or shallow (up to 4-inch depth) beds or pots, apply prepared suspension at a rate of 50 – 100 gallons per 800 square feet. For deeper beds or pots, apply prepared suspension at a rate of 100 gallons per 400 square feet, 1/2 cup (4 fluid ounces) for pots with a 3-inch diameter, or 1 cup (8 fluid ounces) for pots with a 6-inch diameter.

Apply T-22 WP to soil through low pressure watering nozzles such as fan nozzles or other soil drench watering systems. Constant agitation is required to maintain T-22 WP in suspension. T-22 WP can be tank mixed and is compatible with many commonly used fungicides, liquid fertilizers, herbicides, insecticides and biological control products registered for use on greenhouse/ornamental plants. If tank mixes are desired, observe the most restrictive of labeling limitations and precautions of all products used in mixtures. Consult the tank mix compatibility chart below or your BioWorks, Inc. representative for more information.

NURSERY DRENCH: Suspend 1.0 – 32.0 ounces of T-22 WP in 100 gallons of water with agitation and apply prepared suspension as a drench to container nursery crops. For shallow (up to 4-inch depth) beds or pots, apply prepared suspension at a rate of 50 – 100 gallons per 800 square feet. For deeper beds or pots, apply prepared suspension at a rate of 100 gallons per 400 square feet, 1/2 cup (4 fluid ounces) for pots with a 3-inch diameter, or 1 cup (8 fluid ounces) for pots with a 6-inch diameter.

Apply T-22 WP through low pressure watering nozzles such as fan nozzles, soil drench watering systems, handheld sprayers or backpack sprayers. Constant agitation is required to maintain T-22 WP in suspension. T-22 WP can be tank mixed and is compatible with many commonly used fungicides, liquid fertilizers, herbicides, insecticides and biological control products registered for use on nursery plants. If tank mixes are desired, observe the most restrictive of labeling limitations and precautions of all products used in mixtures. Consult the tank mix compatibility chart below or your BioWorks, Inc. representative for more information.

IN-FURROW SPRAY OR TRANSPLANT STARTER SOLUTION: Apply T-22 WP as an in-furrow spray or transplant starter solution at a rate of 1.0 – 32.0 ounces/acre in sufficient water to achieve uniform application. Maintain constant agitation. T-22 WP can be tank mixed and is compatible with many commonly used fungicides, liquid fertilizers, herbicides, insecticides and biological control products. If tank mixes are desired, observe the most restrictive of labeling limitations and precautions of all products used in mixtures. Consult the tank mix compatibility chart below or your BioWorks, Inc. representative for more information.

TANK MIXING: T-22 WP can be tank mixed and is compatible with many commonly used fungicides, liquid fertilizers, herbicides, and insecticides. If tank mixes are desired, observe the most restrictive of labeling limitations and precautions of all products used in mixtures.. **This product must not be tank mixed with chemicals that contain the following active ingredients: imazalil, propiconazole, tebuconazole, and triflumizole.** Do not apply T-22 WP immediately before these pesticides are used.

In accordance with the most restrictive of label limitations and precautions (for all products used in a tank mixture), this product can be mixed with other products. Do not exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing.

NOTE: The user must always read the label of the other products used in a tank mix to confirm application rates and dilutions.

GREENHOUSE AND FIELD CHEMIGATION

Suspend 1.0 – 32.0 ounces T-22 WP in 100 gallons of water with agitation and apply only through the following systems: 1) Over head boom-type sprayers or sprinklers, mist-type irrigation systems, sprinklers such as impact or micro-sprinklers, center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set or hand move (Pre-plant only) 2) pressurized drench (flood) or drip (trickle), 3) furrow, 4) micro-irrigation such as spaghetti-tube or individual tube irrigation, 5) hand-held calibrated irrigation equipment such as the hand-held wand with injector, and 6) ebb and flow. Do not apply this product through any other type of irrigation system.

Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.

If you have 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 supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Requirements for Chemigation Systems Connected to Public Water Systems:

- 1) 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, back flow 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.

- 3) 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 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.
- 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) Do not apply when wind speed favors drift beyond the area intended for treatment.
- 8) Apply T-22 WP during the last half of the water application period. Mix T-22 WP in enough water to be able to draw through the system for the last half of the water application. Maintain constant agitation.
- 9) Apply enough water to move T-22 WP into the root zone. Amounts will vary depending on soil type and existing moisture level. Do not apply water volumes that would cause runoff or excessive leaching.

Sprinkler Chemigation Requirements:

- 1) 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 back flow.
- 2) The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back towards 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 fitted with a system interlock.
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment.
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.

Center-pivot, Lateral Move, End Tow, and Traveler Irrigation Equipment (Pre-Plant Only): Use only with electric or oil hydraulic drive systems which provide a uniform water distribution:

- 1) Determine size of area to be treated.
- 2) Determine the time required to apply no more than 1/4 inch of water (6,750 gallons water per acre) over the area to be treated when the system and injection equipment are operated at normal

pressures recommended by the equipment manufacturer. Run system at 80 to 95% of manufacturer's rated capacity.

- 3) Using only water, determine the injection pump output when operated at normal line pressure.
- 4) Determine the amount of T-22 WP required to treat area.
- 5) Add required amount of T-22 WP and sufficient water to meet the injection time requirements of the solution tank.
- 6) Maintain constant solution tank agitation during the injection period.
- 7) Stop injection equipment after treatment is completed. Continue to operate the system until T-22 WP solution has cleared the sprinkler head.

Solid-set, Side (wheel) Roll, and Hand Move Irrigation Equipment (Pre-Plant Only):

- 1) Determine acreage covered by sprinkler.
- 2) Fill injector solution tank with water and adjust flow rate to use contents over a 10- to 30-minute interval.
- 3) Determine the amount of T-22 WP required to treat area.
- 4) Add the required amount of T-22 WP into the same quantity of water used to calibrate the injection equipment.
- 5) Maintain constant solution tank agitation during the injection period.
- 6) Operate system at normal pressures recommended by the manufacturer of the injection equipment and used for the time interval established during calibration.
- 7) Inject T-22 WP at the end of the irrigation cycle or as a separate application to maximize foliar fungicide retention.
- 8) Stop injection equipment after treatment is completed. Continue to operate the system until T-22 WP solution has cleared the last sprinkler head.

Drip (Trickle) Chemigation and Micro-irrigation Requirements:

- 1) 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 back flow.
- 2) 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 fitted with a system interlock.
- 7) Apply T-22 WP during the last half of the water application period. Mix T-22 WP in enough water to be able to draw through the system for the last half of the water application. Maintain constant agitation.
- 8) Apply enough water to move T-22 WP into the root zone. Amounts will vary depending on soil type and existing moisture level. Do not apply water volumes that would cause runoff or excessive leaching.

Flood and Furrow Chemigation Requirements:

- 1) Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity, such as a drop structure or weir box, to decrease potential for water source contamination from back flow if water flow stops.
- 2) Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
 - a. 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 back flow.
 - b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
 - c. 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.
 - d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
 - e. 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.
 - f. 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.
- 3) Apply T-22 WP during the last half of the water application period. Mix T-22 WP in enough water to be able to draw through the system for the last half of the water application. Maintain constant agitation.
- 4) Apply enough water to move T-22 WP into the root zone. Amounts will vary depending on soil type and existing moisture level. Do not apply water volumes that would cause runoff or excessive leaching.

PLANT SAFETY: T-22 WP has been tested on numerous plant varieties with no phytotoxic effects. However, since T-22 WP has not been tested on all plant varieties or in combination with all available tank mixes, the manufacturer recommends testing T-22 WP on a small number of plants to check for adverse plant effects before applying to a larger number of plants.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in original container under refrigerated conditions. Short periods at room temperatures below 75°F will not affect performance. Keep container tightly closed when not in use.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on-site or at an approved waste disposal facility.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Completely empty bag by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then offer for recycling if available, or dispose of empty bag in sanitary landfill or by incineration. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke. If outer box is contaminated, dispose of in same manner as required for the bag.

WARRANTY: Seller warrants that this product conforms to the description on this label and is reasonably fit for the purposes stated on this label when used and stored in accordance with the directions for use. 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 consistent with applicable law, Seller disclaims all other warranties, express or implied, including any warranty of fitness or merchantability. To the extent consistent with applicable 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.

[In Case of Emergency: Call CHEMTREC: (800) 424-9300]

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[Manufactured in the USA by: BioWorks, Inc.]

□



**T-22 WP
BIOLOGICAL FUNGICIDE**

SUB-LABEL B

**For Agricultural/Commercial Use
(packages 1 lb or less)**

T-22 WP

Biological Fungicide

[Alternate Brand Names: PlantShield® HC Biological Fungicide; T-22® HC Biological Fungicide; RootShield® Home and Garden Biological Fungicide; Root Guardian; RootShield® Seed Treatment; RootShield® Seed Treatment Biological Fungicide; RootShield® AG; RootShield® AG Biological Fungicide]

For Organic Production][For Use in Organic Production][Can be used in organic production]]



[Optional Marketing Claim: Wettable Powder Formulation]

ACTIVE INGREDIENT:

Trichoderma harzianum Rifai strain T-22* 1.15%

OTHER INGREDIENTS: 98.85%

TOTAL: 100.00%

*Contains at least 1.0×10^7 colony forming units per gram of product.

KEEP OUT OF REACH OF CHILDREN

CAUTION

[See attached label booklet for First Aid, Precautionary Statements, Storage and Disposal Instructions and Directions for Use]

[See foldout panel for First Aid]

[See foldout panel for Directions for Use]

EPA Reg. No.: 68539-4

EPA Est. No.: 68539-NY-001

Manufactured by: BioWorks, Inc., 100 Rawson Road, Ste. 205, Victor, NY 14564 (800) 877-9443
www.bioworksinc.com

Net Weight: [1 lb]

Lot No.: [lot codes are sticker applied to the front panel of every label on every product container]

Expiration Date: _____

| FIRST AID | |
|--|--|
| If on skin or clothing | <ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 – 20 minutes. • Call a poison control center or doctor for treatment advice. |
| If in eyes | <ul style="list-style-type: none"> • 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. |
| If inhaled | <ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for treatment advice. |
| If swallowed | <ul style="list-style-type: none"> • Call a poison control center 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 center or doctor. • Do not give anything by mouth to an unconscious person. |
| <p>HOTLINE NUMBER: Have the product container or label with you when calling a poison control center or doctor or going for treatment. For general information on this product, contact the National Pesticide Information Center (NPIC) at 1-800-858-7378, Monday through Friday, 8 a.m. to 12 p.m. Pacific Time, or at http://npic.orst.edu. For medical emergencies, call your poison control center at 1-800-222-1222.</p> | |

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if absorbed through skin, inhaled, or swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing dust. 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.

PERSONAL PROTECTIVE EQUIPMENT (PPE) Applicators and other handlers must wear:

- Protective eyewear
- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes and socks

Mixers/loaders and applicators must wear a NIOSH-approved particulate filter with any N, R, or P filter with NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

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.

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. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing

ENVIRONMENTAL HAZARDS

For terrestrial uses: 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 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.

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 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 or dusts have settled.

PRODUCT INFORMATION

T-22 WP Biological Fungicide (T-22 WP) is a preventative biological fungicide for control of plant diseases. The active ingredient is a microbe, *Trichoderma harzianum* Rifai strain T-22, that, when applied to seeds, transplants or other propagative material, soil or planting mixes, grows onto plant roots as they develop and provides protection against plant root pathogens such as *Pythium*, *Rhizoctonia*, *Fusarium*, *Cylindrocladium* and *Thielaviopsis*. T-22 WP can be used alone or in conjunction with certain chemical fungicides; consult your BioWorks, Inc. representative for more information. **This product must not be tank mixed with chemicals that contain the following active ingredients: imazalil, propiconazole, tebuconazole, and triflumizole.** Do not apply T-22 WP immediately before these pesticides are used. **See specific instructions for tank mixing.** Where early season seed rot and seedling diseases are expected, use chemically treated seed or other appropriate measures for stand establishment and T-22 WP for root disease control.

Note: T-22 WP contains live spores of a microbe that must be used prior to disease onset. T-22 WP becomes active in soil or on plants when temperatures are above 50°F and is not effective while temperatures remain cold. T-22 WP can be applied to sterilized or fumigated soil but must be applied after sterilization or fumigation.

T-22 WP is for use in soil applications (soil drench, in soil furrow, and potting soil, and seed treatments for all listed crops (except those mentioned below**).

USE RESTRICTIONS

****ATTENTION: DO NOT APPLY to sugarcane, pechay (bok choy), rice, mushrooms, kiwi, barley, oats, lemon, apple, and chickpea. Not for use on aquatic crops.**

APPLICATION INSTRUCTIONS

APPLY VIA GROUND APPLICATION ONLY.

CROPS ON WHICH T-22 WP MAY BE USED:

| CROP | USE | APPLICATION RATE OF T22 WP |
|---|---|--|
| Asparagus **Refer to excluded crops above the tables | In-furrow spray or transplant starter solution *Field chemigation | 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water |
| Berries and Small Fruits, including: Blackberries, Blueberries, Currants, Elderberries, Gooseberries, Huckleberries, Loganberries, Raspberries, Strawberries, Grapes **Refer to excluded crops above the tables | Cutting or bare-rooted transplant dip Greenhouse drench Nursery drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 0.33 – 1.0 lb/6.67 gal water or dip directly into dry powder 3.0 – 5.0 oz/100 gal water 3.0 – 5.0 oz/100 gal water 8.0 – 16.0 oz/½ acre 3.0 – 5.0 oz/100 gal water 3.0 – 5.0 oz/100 gal water |
| Bulb Vegetables, including: Garlic, Leeks, Onions, Shallots, Ornamental Bulbs | Dust (pre-plant) | 0.3 – 1.0 lb/cwt bulbs or 0.33 – 1.0 lb/6.67 gal water |
| Cereal Grains, including: Buckwheat, Corn (grain, seed, sweet corn, silage, popcorn, high oil), Rye, Wheat, Sorghum, Millet **Refer to excluded crops above the tables | Planter box (onsite) Commercial seed treatment Field chemigation | 1.5 – 3.0 oz/cwt seed 0.0004 – 0.529 lb/cwt seed 3.0 – 5.0 oz/100 gal water |
| Citrus Fruits, including: Citrus Hybrids, Grapefruit, Kumquat, Limes, Oranges, Pummelos **Refer to excluded crops above the tables | Cutting or bare-rooted transplant dip Greenhouse drench Nursery drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 1.0 – 3.0 lb/20 gal water or dip directly into dry powder 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/acre 1.0 – 32.0 oz/100 gal water 1.0 – 32.0 oz/100 gal water |
| Cucurbit Vegetables, including: Cucumbers, Melons (i.e., Chinese Waxgourd, Citron Melon, Muskmelons, or Watermelon), Gourds, Pumpkins, Squash | Planter box (onsite) Commercial seed treatment Greenhouse drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 2.0 – 8.0 oz/cwt seed 0.0141 – 0.564 oz/lb seed 3.0 – 5.0 oz/100 gal water 8.0 – 16.0 oz/½ acre 3.0 – 5.0 oz/100 gal water 3.0 – 5.0 oz/100 gal water |

| CROP | USE | APPLICATION RATE OF T22 WP |
|--|--|---|
| Flowers, Bedding Plants, and Ornamentals | Cutting or bare-rooted transplant dip Commercial seed treatment Greenhouse drench Nursery drench Greenhouse chemigation Field chemigation | 0.33 – 1.0 lb/6.67 gal water or dip directly into dry powder 0.0141 – 4.233 oz/lb seed 3.0 – 5.0 oz/100 gal water 3.0 – 5.0 oz/100 gal water 3.0 – 5.0 oz/100 gal water 3.0 – 5.0 oz/100 gal water |
| Fruiting Vegetables, including: Eggplant, Sweet and Hot Peppers, Tomatillos, Tomatoes | Commercial seed treatment Greenhouse drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 0.0564 – 4.233 oz/lb seed 3.0 – 5.0 oz/100 gal water 8.0 – 16.0 oz/½ acre 3.0 – 5.0 oz/100 gal water 3.0 – 5.0 oz/100 gal water |
| Herbs and Spices Mints | Commercial seed treatment Greenhouse drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 0.0564 – 4.233 oz/lb seed 3.0 – 5.0 oz/100 gal water 8.0 – 16.0 oz/½ acre 3.0 – 5.0 oz/100 gal water 3.0 – 5.0 oz/100 gal water |
| Leafy and Brassica (Cole) Leafy Vegetables, including: Arugula, Celery, Chervil, Endive, Fennel, Lettuce (head and leaf), Parsley, Radicchio, Rhubarb, Spinach, Swiss Chard, Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Collards, Kale, Kohlrabi, Mustard Greens **Refer to excluded crops above the tables | Cutting or bare-rooted transplant dip Commercial seed treatment Greenhouse drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 0.33 – 1.0 lb/6.67 gal water or dip directly into dry powder 0.0141 – 4.233 oz/lb seed 3.0 – 5.0 oz/100 gal water 8.0 – 16.0 oz/½ acre 3.0 – 5.0 oz/100 gal water 3.0 – 5.0 oz/100 gal water |
| Legume Vegetables (Succulent or Dried), including: Beans (soybean, snap, dry), Lentils, Peas **Refer to excluded crops above the tables | Planter box (onsite) Commercial seed treatment Field chemigation | 1.5 – 3.0 oz/cwt seed 0.0004 – 0.529 lb/cwt seed 3.0 – 5.0 oz/100 gal water |
| Nongrass Animal Feeds (Forage, Fodder, Straw, and Hay), including: Alfalfa, Clover, Vetch, Trefoil | Planter box (onsite) Commercial seed treatment | 2.0 – 4.0 oz/cwt seed 0.0564 – 4.233 oz/lb seed |

| CROP | USE | APPLICATION RATE OF T22 WP |
|---|---|--|
| Oilseed Crops: Cotton, Canola, Safflower, Sunflower | Planter box (onsite) Commercial seed treatment Field chemigation | 1.5 – 3.0 oz/cwt seed 0.0176 – 0.529 lb/cwt seed 3.0 – 5.0 oz/100 gal water |
| Peanut | Planter Box (onsite) Commercial seed treatment | 1.0 – 10.0 oz/cwt seed 0.0004 – 0.0706 lb/cwt seed |
| Pome Fruits: Pears, Quince **Refer to excluded crops above the tables | Greenhouse drench Nursery drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 3.0 – 5.0 oz/100 gal water 3.0 – 5.0 oz/100 gal water 8.0 – 16.0 oz/½ acre 3.0 – 5.0 oz/100 gal water 3.0 – 5.0 oz/100 gal water |
| Root and Tuber Vegetables: Beets, Sugar Beets, Carrots, Celeriac, Chicory, *Ginseng, Horseradish, Parsnip, Radish, Rutabaga, Salsify, Turnips Potatoes, Sweet Potatoes, Yams, Jerusalem Artichoke, Cassava, Ginger | Commercial seed treatment Planter box (onsite) In-furrow spray or transplant starter solution Field chemigation | 0.0141 – 0.564 oz/lb seed .05 – 3.0 oz/cwt seed tubers or cut potato seed pieces or 0.33 – 1.0 lb/6.67 gal water 8.0 – 16.0 oz/ ½ acre 3.0 -5.0 oz/ 100 gal water 3.0 – 5.0 oz/100 gal water |
| Shadehouse and Outdoor Nursery Crops: Deciduous Trees (e.g., Maple, Oak), Ornamentals, Grapes, Citrus, Pine | Cutting or bare-rooted transplant dip Greenhouse drench Nursery drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 0.33 – 1.0 lb/6.67 gal water or dip directly into dry powder 3.0 – 5.0 oz/100 gal water 3.0 – 5.0 oz/100 gal water 8.0 – 16.0 oz/½ acre 3.0 – 5.0 oz/100 gal water 3.0 – 5.0 oz/100 gal water |
| Stone Fruits: Apricots, Cherries, Nectarines, Peaches, Plums, Prunes | Cutting or bare-rooted transplant dip Greenhouse drench Nursery drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 0.33 – 1.0 lb/6.67 gal water or dip directly into dry powder 3.0 – 5.0 oz/100 gal water 3.0 – 5.0 oz/100 gal water 8.0 – 16.0 oz/½ acre 3.0 – 5.0 oz/100 gal water 3.0 – 5.0 oz/100 gal water |
| Tree Nuts: Almonds, Beech Nuts, Brazil Nuts, Butternuts, Cashews, Chestnuts, Filberts, Hickory Nuts, Macadamia Nuts, Pecans, Pistachios, Walnuts | Cutting or bare-rooted transplant dip Greenhouse drench Nursery drench In-furrow spray or transplant starter solution | 0.33 – 1.0 lb/6.67 gal water or dip directly into dry powder 3.0 – 5.0 oz/100 gal water 3.0 – 5.0 oz/100 gal water 8.0 – 16.0 oz/½ acre |

| | | |
|--|------------------------|----------------------------|
| | Greenhouse chemigation | 3.0 – 5.0 oz/100 gal water |
| | Field chemigation | 3.0 – 5.0 oz/100 gal water |

| CROP | USE | APPLICATION RATE OF T22 WP |
|--|--|--|
| *Tropical and Subtropical Fruit, Inedible Peel, including: Passionfruit, Banana, Plantain Edible Peel, including: Starfruit | Greenhouse drench Nursery drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation | 3.0 – 5.0 oz/100 gal water 3.0 – 5.0 oz/100 gal water 8.0 – 16.0 oz/½ acre 3.0 – 5.0 oz/100 gal water 3.0 – 5.0 oz/100 gal water |
| Turfgrass: Turf, Sports Fields, Parks, Established and New Preparation of Golf Course Tees, Greens, Fairways and Roughs, Seed Production, Sod Production | Planter box (onsite) Commercial seed treatment | 1.0 – 10.0 oz/cwt seed 0.0564 – 4.233 oz/lb seed |

* Not for use in California

SEED TREATMENT FOR TRUE SEED CROPS

ONSITE APPLICATION TO SEED: For protection against root diseases, apply 1.0 – 10.0 ounces of T-22 WP/hundredweight of seed. To assure uniform application, add half the required amount of T-22 WP to half the seed in the hopper, mix with a wooden paddle, and then add the remaining seed and T-22 WP. T-22 WP can also be applied in sufficient water to coat seeds. For maximum seed protection, especially in cold soils, apply T-22 WP to commercially treated seed for stand establishment.

Do not use treated seed for food or feed purposes or process for oil. Treat only those seeds needed for immediate use, minimizing the interval between treatment and planting. Do not store excess treated seeds beyond planting time.

COMMERCIAL SEED TREATMENT: Apply T-22 WP as a slurry, a coating, in a pellet, or during seed priming. See tables below.

NOTE: This product does not contain dye and is not covered by an appropriate tolerance exemption, or other clearance under the Federal Food, Drug and Cosmetic Act. Therefore, to comply with 40 CFR 153.155, all seeds treated commercially with this product must be colored with an EPA-approved dye or colorant of suitable color to prevent accidental use as food for man or feed for animals.

The Federal Seed Act requires that bags containing seed treated with this product shall be labeled with the following information: “This seed has been treated with *Trichoderma harzianum* Rifai strain T-22. Do not use for food, feed or oil purposes.”

USE RESTRICTIONS

****ATTENTION: DO NOT APPLY to sugarcane, pechay (bok choy), rice, mushrooms, kiwi, barley, oats, lemon, apple, and chickpea. Not for use on aquatic crops.**

AGRICULTURAL CROPS

| Seed Size (#seeds/oz) | Grams of T-22 WP per lb of seed | Ounces of T-22 WP per lb of seed |
|---|---------------------------------|----------------------------------|
| Large (1 – 100) such as: peanuts, green & dry beans, field corn | 0.0016 – 0.32 g | 0.00006 – 0.0113 oz |
| Medium (100 – 1,000) such as: sweet corn, soybeans, sorghum | 0.08 – 2.4 g | 0.0028 – 0.0847 oz |
| Small (1,000 – 10,000) such as: cabbage, cucumbers, sugar beets | 0.4 – 16 g | 0.0141 – 0.564 oz |
| Fine (10,000 – 100,000) such as: tomatoes | 1.6 – 120 g | 0.0564 – 4.233 oz |

ORNAMENTAL CROPS

| Seed Size (#seeds/oz) | Grams of T-22 WP per lb of seed | Ounces of T-22 WP per lb of seed |
|--|--|---|
| Small (1,000 – 10,000) such as: Echinacea, Cosmos | 0.4 – 16 g | 0.0141 – 0.564 oz |
| Fine (10,000 – 100,000) such as: Texas bluegrass, ryegrass | 1.6 – 120 g | 0.0564 – 4.23 oz |
| Very Fine (100,000 – 500,000) such as: bentgrass | 8.0 – 80 g | 0.282 – 2.82 oz |

SEED TREATMENT FOR VEGETATIVELY PROPAGATED CROPS (INCLUDING POTATOES, OTHER ROOT AND TUBER VEGETABLES, AND BULB VEGETABLES)

For planting or storage, treat at 0.3 – 3.0 oz T-22 WP to 100 lbs. (1 cwt) of bulbs, seed tubers or cut potato seed pieces. Alternatively, dip bulbs, seed tubers or cut potato seed pieces in a suspension consisting of 0.33 – 1.0 pounds of T-22 WP in 6.67 gallons of water.

For potatoes, apply T-22 WP with compatible chemical seed dusts. Consult your BioWorks, Inc. representative for more information. All surfaces, knives, and other equipment used to cut and plant potatoes should be thoroughly sterilized before cutting and planting and at regular intervals. The cut and treated seed pieces may be held for a week or more at cool temperatures, 45 – 50°F, and high relative humidity to promote suberization, or they may be planted immediately.

DIP FOR CUTTINGS AND BARE-ROOTED TRANSPLANTS

Dip cuttings and bare-rooted transplants in T-22 WP dry powder or in a suspension of 0.33 – 1.0 pounds of T-22 WP in 6.67 gallons of water. Plant treated cuttings and bare-rooted transplants in potting mix or soil in the usual manner.

GREENHOUSE DRENCH:

Suspend 3.0 – 5.0 ounces of T-22 WP in 100 gallons of water with agitation and apply prepared suspension as a soil drench to greenhouse planting mixes. For seeding flats or shallow (up to 4-inch depth) beds or pots, apply prepared suspension at a rate of 50 – 100 gallons per 800 square feet. For deeper beds or pots, apply prepared suspension at a rate of 100 gallons per 400 square feet, 1/2 cup (4 fluid ounces) for pots with a 3-inch diameter, or 1 cup (8 fluid ounces) for pots with a 6-inch diameter.

Apply T-22 WP through soil directed low pressure watering nozzles such as fan nozzles or other drench watering systems. Constant agitation is required to maintain T-22 WP in suspension. T-22 WP can be tank mixed and is compatible with many commonly used fungicides, liquid fertilizers, herbicides, insecticides and biological control products registered for use on greenhouse/ornamental plants. If tank mixes are desired, observe the most restrictive of labeling limitations and precautions of all products used in mixtures. Consult the tank mix compatibility chart below or your BioWorks, Inc. representative for more information.

NURSERY DRENCH:

Suspend 3.0 – 5.0 ounces of T-22 WP in 100 gallons of water with agitation and apply prepared suspension as a drench to container nursery crops. For shallow (up to 4inch depth) beds or pots, apply prepared suspension at a rate of 50 – 100 gallons per 800 square feet. For deeper beds or pots, apply prepared suspension at a rate of 100 gallons per 400 square feet, 1/2 cup (4 fluid ounces) for pots with a 3-inch diameter, or 1 cup (8 fluid ounces) for pots with a 6-inch diameter.

Apply T-22 WP through soil directed low pressure watering nozzles such as fan nozzles or other drench watering systems, handheld sprayers or backpack sprayers. Constant agitation is required to maintain T-22 WP in suspension. T-22 WP can be tank mixed and is compatible with many commonly used fungicides, liquid fertilizers, herbicides, insecticides and biological control products registered for use on nursery plants. If tank mixes are desired, observe the most restrictive of labeling limitations and precautions of all products used in mixtures. Consult the tank mix compatibility chart below or your BioWorks, Inc. representative for more information.

IN-FURROW SPRAY OR TRANSPLANT STARTER SOLUTION:

Apply T-22 WP as an in-furrow spray or transplant starter solution at a rate of 8.0 – 16.0 ounces/½ acre in sufficient water to achieve uniform application. Maintain constant agitation. T-22 WP can be tank mixed and is compatible with many commonly used fungicides, liquid fertilizers, herbicides and insecticides. If tank mixes are desired, observe the most restrictive of labeling limitations and precautions of all products used in mixtures. If necessary, consult your BioWorks, Inc. representative for more information.

TANK MIXING:

T-22 WP can be tank mixed and is compatible with many commonly used fungicides, liquid fertilizers, herbicides, and insecticides. If tank mixes are desired, observe the most restrictive of labeling limitations and precautions of all products used in mixtures. Consult your BioWorks, Inc. representative for more information. **This product must not be tank mixed with chemicals that contain the following active ingredients: imazalil, propiconazole, tebuconazole, and triflumizole.** Do not apply T-22 WP immediately before these pesticides are used.

In accordance with the most restrictive of label limitations and precautions (for all products used in a tank mixture), this product can be mixed with other products for use in greenhouse drench, nursery drench, in-furrow spray and transplant starter solution. Do not exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing.

NOTE: The user must always read the label of the other products used in a tank mix to confirm application rates and dilutions.

GREENHOUSE AND FIELD CHEMIGATION

Suspend 3.0 – 5.0 ounces T-22 WP in 100 gallons of water with agitation and apply only through the following systems: 1) Over head boom-type sprayers or sprinklers, mist-type irrigation systems, sprinklers such as impact or micro-sprinklers, center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set or hand move (Pre-plant only) 2) pressurized drench (flood) or drip (trickle) systems, 3) furrow, 4) micro-irrigation, such as spaghetti-tube or individual tube irrigation, 5) soil-directed hand-held calibrated irrigation equipment, such as the hand-held wand with injector, and 6) ebb and flow systems. Do not apply this product through any other type of irrigation system.

Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.

If you have 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 supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Requirements for Chemigation Systems Connected to Public Water Systems:

- 1) 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, back flow 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.
- 3) 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 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.
- 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) Do not apply when wind speed favors drift beyond the area intended for treatment.
- 8) Apply T-22 WP during the last half of the water application period. Mix T-22 WP in enough water to be able to draw through the system for the last half of the water application. Maintain constant agitation.
- 9) Apply enough water to move T-22 WP into the root zone. Amounts will vary depending on soil type and existing moisture level. Do not apply water volumes that would cause runoff or excessive leaching.

Drip (Trickle) Chemigation and Micro-irrigation Requirements:

- 1) 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 back flow.
- 2) 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 fitted with a system interlock.
- 7) Apply T-22 WP during the last half of the water application period. Mix T-22 WP in enough water to be able to draw through the system for the last half of the water application. Maintain constant agitation.
- 8) Apply enough water to move T-22 WP into the root zone. Amounts will vary depending on soil type and existing moisture level. Do not apply water volumes that would cause runoff or excessive leaching.

Flood and Furrow Chemigation Requirements:

- 1) Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity, such as a drop structure or weir box, to decrease potential for water source contamination from back flow if water flow stops.
- 2) Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
 - a. 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 back flow.
 - b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
 - c. 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.
 - d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
 - e. 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.
 - f. 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.
- 3) Apply T-22 WP during the last half of the water application period. Mix T-22 WP in enough water to be able to draw through the system for the last half of the water application. Maintain constant agitation.

- 4) Apply enough water to move T-22 WP into the root zone. Amounts will vary depending on soil type and existing moisture level. Do not apply water volumes that would cause runoff or excessive leaching.

PLANT SAFETY: T-22 WP has been tested on numerous plant varieties with no phytotoxic effects. However, since T-22 WP has not been tested on all plant varieties or in combination with all available tank mixes, the manufacturer recommends testing T-22 WP on a small number of plants to check for adverse plant effects before applying to a larger number of plants.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in original container under -refrigerated conditions. Short periods at room temperatures below 75°F will not affect performance. Keep container tightly closed when not in use.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Completely empty bag by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then offer for recycling if available, or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke. If outer box is contaminated, dispose of it in the same manner as required for the bag.

WARRANTY: Seller warrants that this product conforms to the description on this label and is reasonably fit for the purposes stated on this label when used and stored in accordance with the directions for use. 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 consistent with applicable law, Seller disclaims all other warranties, express or implied, including any warranty of fitness or merchantability. To the extent consistent with applicable 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.

[In Case of Emergency: Call CHEMTREC: (800) 424-9300]

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[Manufactured in the USA by: BioWorks, Inc.]



**T-22 WP
BIOLOGICAL FUNGICIDE**

SUB-LABEL C

**For Residential Use
(Home and Garden Use)**

T-22 WP

Biological Fungicide

[Alternate Brand Names: PlantShield® HC Biological Fungicide; T-22® HC Biological Fungicide; RootShield® Home and Garden Biological Fungicide; Root Guardian; RootShield® Seed Treatment; RootShield® Seed Treatment Biological Fungicide; RootShield® AG; RootShield® AG Biological Fungicide]

[For Organic Gardening] For Use in Organic Gardening



[Optional Marketing Claim: Wettable Powder Formulation]

ACTIVE INGREDIENT:

Trichoderma harzianum Rifai strain T-22* 1.15%

OTHER INGREDIENTS: 98.85%

TOTAL: 100.00%

*Contains at least 1.0×10^7 colony forming units per gram of product.

KEEP OUT OF REACH OF CHILDREN

CAUTION

[See attached label booklet for First Aid, Precautionary Statements, Storage and Disposal Instructions and Directions for Use]

[See foldout panel for First Aid]

[See foldout panel for Directions for Use]

EPA Reg. No.: 68539-4

EPA Est. No.: 68539-NY-001

Manufactured by:

BioWorks, Inc.

100 Rawson Road, Suite 205

Victor, NY 14564 800-877-9443

www.bioworksinc.com

Net Weight: [2.63 oz or 4 oz]

Lot No.: [lot codes are sticker applied to the front panel of every label on every product container]

Expiration Date: _____

| FIRST AID | |
|---|---|
| If on skin or clothing | <ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15 – 20 minutes.• Call a poison control center or doctor for treatment advice. |
| If in eyes | <ul style="list-style-type: none">• 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. |
| If inhaled | <ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.• Call a poison control center or doctor for treatment advice. |
| If swallowed | <ul style="list-style-type: none">• Call a poison control center 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 center or doctor.• Do not give anything by mouth to an unconscious person. |
| HOTLINE NUMBER: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For general information on this product, contact the National Pesticide Information Center (NPIC) at 1-800-858-7378, Monday through Friday, 8 a.m. to 12 p.m. Pacific Time, or at http://npic.orst.edu . For medical emergencies, call your poison control center at 1-800-222-1222. | |

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if absorbed through skin, inhaled, or swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing dust. 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.

ENVIRONMENTAL HAZARDS

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area.

DIRECTIONS FOR USE

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

PRODUCT INFORMATION

T-22 WP Biological Fungicide (T-22 WP) is a preventative biological fungicide for control of plant diseases. The active ingredient is a microbe, *Trichoderma harzianum* Rifai strain T-22, that, when applied to seeds, transplants or other propagative material, soil or planting mixes, grows onto plant roots as they develop and provides protection against plant root pathogens such as *Pythium*, *Phytophthora*, *Rhizoctonia* and *Fusarium*. Where early season seed rot and seedling diseases are expected, use chemically treated seed or other appropriate measures for stand establishment and T-22 WP for root disease control.

Note: T-22 WP contains live spores of a microbe that must be used prior to disease onset. T-22 WP becomes active in soil or on plants when temperatures are above 50°F and is not effective while temperatures remain cold.

ATTENTION: DO NOT APPLY to sugarcane, pechay (bok choy), rice, mushrooms, kiwi, barley, oats, lemon, apple, and chickpea. Not for use on aquatic plants.

HOME & GARDEN SEED, SOIL AND PLANT ROOT DRENCH: For preventative control of root diseases of vegetable, flower, and ornamental plants.

For drench application to seeds, mix 1.0 – 3.0 tablespoons of ROOTSHIELD® WP per gallon of water, and apply prepared mixture with a watering can or other pesticide application device (e.g. pump sprayer) to 25 feet of planting furrow before covering the seeds with soil.

For transplants, mix 1.0 – 3.0 tablespoons of T-22 WP per gallon of water, and apply 1/2 – 1 cup (4 – 8 fluid ounces) of mixture per plant at transplanting. For new plant beds, mix 1.0 – 3.0 tablespoons of T-22 WP per gallon of water, and apply mixture at a rate of one gallon per 25 square feet of plant bed.

For established beds or potted plants, mix 1.0 – 3.0 tablespoons of T-22 WP per gallon of water, and apply mixture at a rate of one gallon per 25 square feet of plant bed or 1/2 – 1 cup (4 – 8 fluid ounces) per 4- to 8-inch diameter pot.

T-22 WP is designed for application to seeds, plant roots and soil for control of plant root diseases and is not to be used for spray application to foliage or fruit.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in original container under refrigerated conditions inaccessible to children and pets. Do not store at temperatures above 75°F for prolonged periods. Keep container tightly closed when not in use.

PESTICIDE DISPOSAL AND CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. **If empty** – Place in trash or offer for recycling if available. **If partly filled** – Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down indoor or outdoor drain.

WARRANTY: Seller warrants that this product conforms to the description on this label and is reasonably fit for the purposes stated on this label when used and stored in accordance with the directions for use. 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 consistent with applicable law, Seller disclaims all other warranties, express or implied, including any warranty of fitness or merchantability. To the extent consistent with applicable 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.

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