

72098-8

6-6-2003

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United States Environmental Protection Agency



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Biopesticides and Pollution Prevention Division (7511C)
1200 Pennsylvania Avenue NW
Washington, DC 20460

EPA Reg. Number:

72098-8

Date of Issuance:

6/6/03

Term of Issuance:

Conditional

NOTICE OF PESTICIDE:

X Registration
Reregistration

(under FIFRA, as amended)

Name of Pesticide Product:

TAENURE GRANULAR
BIOINSECTICIDE

Name and Address of Registrant (include ZIP Code):

Earth BioSciences, Inc.
451 Orange Street
New Haven, CT 06511

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

The registration application referred to above, submitted in connection with registration under § 3(c)(7)(C) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable provided that you do the following terms and conditions.

- 1. Submit/cite all data required for registration of your product under FIFRA § 3(c)(5) when the Agency requires all registrants of similar products to submit such data.
2. Submit production information for this product to Mr. Owen Beeder of Registration Division (7505C) for the fiscal year in which this product is conditionally registered, in accordance with FIFRA § 29. The fiscal year begins October 1 and ends September 30. Production information will be submitted to the Agency no later than November 15, following the end of the preceding fiscal year.
3. This registration is registered under FIFRA § 3(c)(7)(C) because of outstanding data of your technical product.

ONE YEAR AFTER THE DATE OF THIS REGISTRATION

- 4. This registration will automatically expire on midnight June 6, 2005. EPA will reevaluate the outstanding data before the above date on whether to convert the registration to a non-expiring registration.

Signature of Approving Official:

JSA

CONCURRENCES

Date:

6/6/03

SYMBOL

7511C

7511C

(See second page for signature)

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DATE

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5. Submit five (5) copies of the revised final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely,



Janet L. Andersen, Ph.D., Director
Biopesticides and Pollution
Prevention Division (7511C)

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ACCEPTED

JUN 6 2003

TAENURE™ GRANULAR BIOINSECTICIDE

For Non-Food Outdoor and Greenhouse Uses

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 1299-8

ACTIVE INGREDIENT – <i>Metarhizium anisopliae</i> Strain F52*	% w/w 2.0%
OTHER INGREDIENTS	98.0%
Total	100.0%

* Contains 9.0 x 10⁸ Colony Forming Units (CFU)/gram.

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed, absorbed through skin, or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Remove contaminated clothing and wash clothing before reuse. Wash thoroughly with soap and water after handling.

FIRST AID

- IF IN EYES:** Flush with plenty of water. Get medical attention if irritation persists.
- IF SWALLOWED:** Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger, or if available, by administering syrup of ipecac. If the person is unconscious, do not give anything by mouth and do not induce vomiting.
- IF ON SKIN OR CLOTHING:** Wash with plenty of soap and water. Get medical attention if irritation persists.
- IF INHALED:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear: Long-sleeved shirt and long pants, waterproof gloves, shoes and socks, and a dust-mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C) or a NIOSH approved respirator with any N, R, P or HE filter. 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.

EMERGENCY INFORMATION

For spill, leak, fire, exposure, or accident call CHEMTREC at 1-800-424-9300.

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ENVIRONMENTAL HAZARDS

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 cleaning equipment or disposing of equipment washwaters.

Not for Sale or Use after (Date to Be Inserted)

Net Contents: _____ Ounces; _____ Grams

Earth BioSciences Inc.
451 Orange Street
New Haven, CT 06511 USA

EPA Establishment Number _____
EPA Registration Number: 72098-_____
Made in _____
Revision: 030211

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 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. "Unit 4 Part B – Special Application Restrictions in Nurseries and Greenhouses" do not apply to this product.

For uses that are incorporated mechanically, do not enter treated areas without footwear until dust has settled. There is no restricted-entry interval (REI) requirement for uses that are incorporated. For all other uses, do not enter or allow worker entry into treated areas during the restricted entry interval of four hours.

PPE required for early entry to treated areas requiring a REI that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water are:

- Coveralls
- Waterproof gloves
- Shoes plus socks
- Dust-mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C) or a NIOSH approved respirator with any N, R, P or HE filter.

USER SAFETY RECOMMENDATIONS

- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if pesticide gets inside, then wash thoroughly and put on clean clothing.
- Remove personal protection equipment immediately after handling this product. If gloves are worn, wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

GENERAL

TAENURE Granular Bioinsecticide is composed of spores of the insect pathogenic fungus *Metarhizium anisopliae* Strain F52 on a grain matrix. Once the product is incorporated into the growing medium, insects that come into contact with the fungus will become infected. The spores of *Metarhizium anisopliae* attach to the surface of the insect, germinate and begin to grow. It will penetrate the exoskeleton of the insect and grow very rapidly inside the insect, causing the insect to die. It usually takes 3 to 5 days, once the insect is exposed for death to occur. As insects are infected, other insects that come into contact with them may also become

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infected. Depending on cultural practices, it is not uncommon for control to last up to nine months.

APPLICATION INSTRUCTIONS

Apply TAENURE Granular Bioinsecticide prior to or during planting by thoroughly mixing the product into the growing medium, ensuring even distribution. Agitate the product during application to shake some fungal growth free from grains and into the surrounding growing medium. Apply at a rate of 1.5 to 3.0 lbs. of product per cubic yard of growing medium (or 25 to 50 grams per cubic foot of growing medium). Use higher label rates when larval pressure is expected to be high.

Do not mix fungicides in growth medium containing TAENURE Granular Bioinsecticide. Keep the plants above 60°F and maintain good drainage. TAENURE Granular Bioinsecticide is grown on cereal grains that will decompose in the growing media. Pests likely to be attracted by grains, such as rodents, must be controlled prior to use of this product.

INSECTS CONTROLLED

Root Weevils, such as:

- Black Vine Weevil (all growth stages)
- Citrus Root Weevil (all growth stages)
- Strawberry Root Weevil (all growth stages)

Flies and Gnats, such as:

- Crane Fly larvae
- Mushroom Fly larvae
- Shore Fly larvae

Grubs, such as:

- Japanese Beetle larvae
- June Beetle larvae
- Oriental Beetle larvae

Thrips, such as:

- Onion Thrips pupae
- Western Flower Thrips pupae

SITES FOR USE

ORNAMENTALS

Abutilon	Buddleia	Crocus	Ficus
Achillea	Bulbs	Crossandra	Fittonia
Actinopteris	Buttercup	Croton	Foliage Plants
African Violet	Butterfly Bush	Crown of Thorns	Foxglove
Ageratum	Cactus	Cultivated Greens	Freesia
Aglaonema	Caladium	Cut Florist Greens	Fuchsia
Ajuga	Calathea	Cut Flowers	Gaillardia
Allamanda	Calceolaria	Cuttings	Gardenia
Allium	Calendula	Cyclamen	Gaultherium
Alocasia	Calla Lily	Daffodils	Gazania
Alyssum	Calliandra	Dahlia	Geranium
Amaryllis	Calluna	Daisy	Gerbera
Anemone	Campanula	Daylily	Geum
Annuals, Ornamental	Candy-Tuft	Delphinium	Gladiolus
Anthurium	Carnation	Dianthus	Gloxinia
Aphelandra	Celosia	Dieffenbachia	Grape
Aralia	Centaurea	Dizygotheca	Grass, Ornamental
Artemisia	Cerastium	Dracena	Ground Covers
Aster	Chinese Evergreen	Dusty Miller	Gynura
Azalea	Chrysanthemum	Easter Lily	Gypsophila
Baby's Breath	Cineraria	Echeveria	Hedera
Bachelors Button	Cissus	Episcia	Hibiscus
Bedding Plants	Clematis	Erica	Hollyhock
Beefsteak Plant	Cockscomb	Euonymus	Honeysuckle
Begonia	Coleus	Euphorbia	Hosta (Plantain Lily)
Bird of Paradise	Columbine	Exacum	Hoya (Wax Plant)
Bleeding Heart	Coral Bells	False Dragonhead	Hyacinth
Bougainvillea	Coreopsis	Fatsia	Hydrangea
Bromeliad	Cosmos	Ferns	Ice Plant

Impatiens
 Iris
 Ivy, Algerian
 Ivy, English
 Jasmine
 Jessamine
 Kalanchoe
 Lantana
 Liatris
 Lily
 Lily of the Nile
 Liriope
 Lobelia
 Loosestrife
 Lupine
 Manvillea
 Maple, Flowering
 Marigold
 Monarda
 Mondo Grass
 Morea, Yellow
 Myrtle
 Narcissus
 Nasturtium
 Nigella

Nursery Crops
 Ophiopogon
 Orchid
 Ornithogalum
 Osmanthus
 Oxalis
 Pachysandra
 Pansy
 Pelargonium
 Peony
 Peperomia
 Perwinkle
 Petunia
 Philodendron
 Phlox
 Photinia
 Pilea
 Pinks
 Pittosporum
 Podocarpus
 Poinsettia
 Poppy
 Portulaca
 Potentilla

Pothos
 Potted Flowering Plants
 Prayer Plant
 Primrose
 Pyracantha
 Ranunculus
 Rhododendron
 Rose
 Rosemary
 Rubber Plant
 Rudbeckia
 Saintpaulia
 Salvia
 Sansevieria
 Saxifraga
 Schefflera
 Scilla
 Sedum
 Seed Beds
 Seedling Plants
 Sempervivum
 Senecio
 Shrubs
 Sinningia

Snapdragon
 Spathiphyllum
 Stachys
 Statice
 Stock
 Stokesia
 Strawberry, Wild
 Strawflower
 Sweet Pea
 Sweet William
 Syngonium
 Tulip
 Verbena
 Veronica
 Vinca
 Violet
 Virginia Creeper
 Wall Flower
 Wandering Jew
 Wisteria
 Yarrow
 Yucca
 Zinnia

SHRUBS

Abelia
 Andromeda
 Arborvitae
 Aucuba
 Azalea
 Bamboo
 Barberry
 Beauty Bush
 Bedding Plants
 Blueberry, Ornamental
 Bog Rosemary
 Bottlebrush
 Boxwood
 Bridal Wreath
 Broom
 Buckthorn
 Camellia
 Caranaga Carob
 Carex
 Ceanothus
 Clevera

Cordyline
 Crape Myrtle
 Cotoneaster
 Cuttings
 Daphne
 Deutzia
 Elderberry
 Escallonia
 Eugenia
 Euonymus
 Fig
 Firethorn
 Forsythia
 Fuchsia
 Guava
 Hawthorn
 Heath
 Heather
 Hibiscus
 Hickory

Holly
 Hydrangea
 Indian Hawthorn
 Juniper
 Laurel
 Leucothoe
 Ligustrum
 Lilac
 Lippia
 Manzanita
 Mock Orange
 Nandina
 Nursery Crops
 Oleander
 Oregon Grape
 Osmanthus
 Pachistima
 Pachysandra
 Photinia
 Pittosporum

Podocarpus
 Poinciana
 Privet
 Pyracantha
 Quince, Ornamental
 Rhamnus
 Rhododendron
 Rockrose
 Rose
 Santolina
 Snowberry
 Spicebrush
 Spirae
 St. Johnswort
 Viburnum
 Wax Myrtle
 Weigla
 Yew

SHADE AND FOREST TREE SEEDLINGS

Acacia
 Alder
 Ash
 Aspen
 Basswood
 Bedding Plants
 Beech
 Birch
 Bougainvillea

Buckeye
 Butternut
 Catalpa
 Cedar
 Chamaecyparis
 Cherry, Wild
 Chestnut
 Conifers
 Cottonwood

Crabapple
 Cuttings
 Cypress
 Dogwood
 Douglas Fir
 Elder
 Elm
 Fir
 Forest Seedlings

Forest Trees
 Gingko
 Gum
 Hackberry
 Hawthorn
 Hemlock
 Hickory
 Holly
 Hornbeam

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Horse Chestnut
Ironwood
Juneberry
Juniper
Larch
Linden
Locust
Magnolia

Maple
Mimosa
Mulberry
Myrtle
Nursery Crops
Oak
Palm
PawPaw

Pine
Poplar
Privet
Quince
Redbud
Redwood
Sassafras
Sourwood

Spruce
Sumac
Sycamore
Tamarack
Tulip Tree
Willow
Yellowwood

STORAGE AND DISPOSAL

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

STORAGE: TAENURE Granular Bioinsecticide consists of living microbes. Store closed product in a cool dry place, preferably under normal refrigeration. Opened packages should be closed tightly, stored in a cool dry place, and used within one month. Do not freeze or expose product to temperatures above 70° F.

PESTICIDE DISPOSAL: Unused TAENURE Granular Bioinsecticide and wastes resulting from the use of this product may be disposed of in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

CONTAINER DISPOSAL: Do not reuse EMPTY container. Dispose of empty container in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

CONDITIONS OF SALE

Earth BioSciences, Inc. warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to manufacturer, and buyer assumes the risk for any such use.