

73314-2

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Washington, D C 20460



DEC 05 2012

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

Mr Micah Reynolds
Technology Sciences Group, Inc
Agent for Natural Industries Inc
1150 18th Street, Suite 1000
Washington, D C 20036

Re Actino-Iron Biological Fungicide
EPA Reg No 73314-2
Submission dated August 25, 2010

Dear Mr Reynolds

The Agency has reviewed your request to amend the subject product registration. The amendment includes the following changes to the product's label:

- Adds residential uses,
- Includes complete list of crops on which the biological fungicide may be applied,
- Revises the warranty statement, and
- Includes additional claims

The EPA did not approve the request to include organic claims. The amendment referred to above, submitted in connection with registration under FIFRA section 3(c)(7)(A), is acceptable provided you

1. Submit and/or cite all data required for registration of your product under FIFRA section 3(c)(5) when the Agency requires all registrants of similar products to submit such data.
2. Submit two (2) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of a final printed label.

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

A stamped copy of the label and A-79 are enclosed for your records. If you have questions, please contact Michael Glikes by phone at (703) 305-6231 or by email at glikes.michael@epa.gov

Sincerely,

Handwritten signature of Sheryl K. Reilly.
Sheryl K. Reilly, Acting Chief
Microbial Pesticides Branch
Biopesticides and Pollution Prevention
Division (Mail Code 7511P)

Actino-Iron® Biological Fungicide

Sublabel A	Greenhouse, Nursery, Turf Grass and Agricultural Use
Sublabel B	Home & Garden Use
Optional Label Claims	

EPA Reg No 73314-2
EPA Establishment No 73314-TX-001

Natural Industries Inc
12320 Cutten Road
Houston TX 77066
Questions? (888) 261-4731

ACCEPTED

DEC 05 2012

Under the Federal Insecticide, Fungicide
and Rodenticide Act, as amended for
the pesticide-registered under
EPA Reg No 73314-2

Sublabel A Greenhouse, Nursery, Turf Grass and Agricultural Use

Actino-Iron® Biological Fungicide

Grade: 0-0-0

ACTIVE INGREDIENT

Streptomyces lydicus WYEC108* 0.013%

OTHER INGREDIENTS 99.987%

TOTAL 100.00% (by wt)

*Contains a minimum of 1 X 10⁶ colony forming units per gram

**Other Ingredients include Iron at a minimum of 15% and Humic Acid at a minimum of 1.00% Iron is derived from magnetite ore

GUARANTEED ANALYSIS	
Iron (Fe)	15.0%
Molybdenum (Mo)	0.001%
Iron derived from magnetite ore complexed by siderophores of <i>Streptomyces lydicus</i> WYEC 108	
ALSO CONTAINS NON-PLANTFOOD INGREDIENT	
1% Humic Acid derived from decomposed plant residue	

ATTENTION This product contains molybdenum (Mo) Crops high in molybdenum can be toxic to ruminant animals Use only according to manufacturer s directions Information regarding the contents and levels of metals in this product is available on the Internet at <http://www.aapfco.org/metals.htm>

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
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

HOT LINE NUMBER
Have the product container or label with you when calling a poison control center or doctor or going for treatment You may also contact 1 800 222-1222 for emergency medical treatment information

See (back panel) (side panel) (insert) for (first aid) (additional precautionary statements) (and directions for use)

EPA Reg No 73314 2
EPA Establishment No 73314 TX-001

Natural Industries Inc
12320 Cutten Road
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Questions? (888) 261 4731

US Patent No 5 403 584

Net Weight (50 lbs) (25 lbs)
Lot/Batch No

PRECAUTIONARY STATEMENTS

Hazards to humans and domestic animals - CAUTION Causes moderate eye irritation Avoid contact with eyes or clothing Wash thoroughly with soap and water after handling and before eating drinking chewing gum using tobacco or using the toilet Remove and wash contaminated clothing before reuse

Personal Protective Equipment (PPE)

Applicators and other handlers must wear

- long-sleeved shirt and long pants
- shoes plus socks

Mixer/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95 R-95 or P-95 Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization Follow the manufacturer s instructions for cleaning / maintaining PPE If no instructions are available use detergent and hot water for washables Keep and wash PPE separately from other laundry

USER SAFETY RECOMMENDATIONS

Users should

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

Environmental Hazards Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean highwater 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

Do not apply this product through any type of irrigation system

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

- Coveralls
- Chemical resistant gloves (made of any waterproof material)
- 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 dusts have settled

Product Information Actino-Iron® Biological Fungicide is a biological soil additive and fungicide for the suppression/control of soil borne plant root rot and damping-off fungi Actino-Iron® Biological Fungicide contains agricultural grade iron and humate (fulvic and humic acids) and is inoculated with the patented Actinovate® microorganism *Streptomyces lydicus* WYEC 108 The microorganism colonizes on the root systems of plants protecting the plant from soil borne diseases Fungi controlled include *Fusarium Pythium Rhizoctonia Phytophthora Phytomatotricum Aphanomyces Monosprascus Armillaria Sclerotinia Postia Verticillium Geotrichum* and other root decay fungi In addition use of Actino-Iron® Biological Fungicide will produce hardier more vigorous plants with increased root development Plants will be larger and greener with Actino-Iron® Biological Fungicide

(Integrated Pest Management) Integrate Actino-Iron® Biological Fungicide into an overall disease and pest management strategy whenever fungicide use is necessary Apply Actino-Iron® Biological Fungicide alone or in combination and/or rotation with chemical fungicides Follow practices known to reduce disease development Consult local agricultural authorities for specific IPM strategies developed for your crop(s) and location)

APPLICATION DIRECTIONS

Application Uses For indoor/outdoor greenhouse nursery turf grass ornamental plant and field uses Actino-Iron® Biological Fungicide is a biological fungicide for use in soil applications (top dressing with fertilizer soil incorporation and in furrow) for growing plants

Greenhouses and Nurseries Potting Soil Mix Use in greenhouses glass houses shade houses enclosed nurseries and outdoor field grown and container nursery plants including perennials ornamentals trees seedlings ornamental grasses all types of hardwood and softwood cuttings, palms, foliage plants, cut flowers cut foliage and ferns seedlings plugs bench or bed grown plants vegetables and herbs

Evenly mix 5 lbs of Actino-Iron® Biological Fungicide per cubic yard of planting media. Re-apply to planting media when repotting.

For nursery beds, incorporate at a rate of 2-8 pounds per 1000 square feet of bed by raking or tilling. Application of irrigation water will help move Actino-Iron® Biological Fungicide into the soil.

For top dressing with fertilizer, apply at a rate of 3-oz per cubic foot of planting media in pot. Water in thoroughly without creating run-off.

If soil is fumigated or steam sterilized, apply Actino-Iron® Biological Fungicide after treatment. Actino-Iron® Biological Fungicide can be used in combination with or in rotation with other fungicides, insecticides, miticides, fertilizers, or micronutrients. Consult other product's labels for additional information or restrictions concerning tank mixing. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures. Do not exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing.

Turf Grass Use on all cool and warm season turf grass varieties such as Bentgrass, Bluegrass, Bermudagrass (common and hybrid), Fescue, Ryegrass, St. Augustine, Zoysia, Paspalum, and Poa Annua. Use on Greens, Tees, Fairways, and Roughs, Sports Turf, Parks, Cemeteries, (Residential) Lawns, Sod Farms, Seed Production Grasses, and all ornamental grass varieties. Apply Actino-Iron® Biological Fungicide throughout the growing season on all types of soils and turfgrass varieties.

For problem areas with a history of or potential for fungal disease, evenly apply 9 lbs of Actino-Iron® Biological Fungicide per 1,000 square feet of turf grass. For general maintenance, evenly apply 4 lbs of Actino-Iron® Biological Fungicide per 1,000 feet of turfgrass. If soil is fumigated or steam sterilized, apply Actino-Iron® Biological Fungicide after treatment. Actino-Iron® Biological Fungicide can be used in combination with or in rotation with other fungicides, insecticides, miticides, fertilizers, or micronutrients. Consult other product's labels for additional information or restrictions concerning tank mixing. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures. Do not exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing.

For optimal results, apply with a drop spreader or by blending Actino-Iron® Biological Fungicide into fertilizer top dressing (sand, peat, humus, compost). Water in immediately after application.

(Outdoor) (Field) Use on Growing Crops and Ornamental Plants For use throughout the growing season on all types of soils and all listed outdoor field-grown food crops including vegetables, grains, herbs, small fruits, berries, and fruit and nut trees. For use throughout the growing season on all types of soils and on all outdoor-grown ornamentals, landscape plants, trees, shrubs, annuals, perennials, ground covers, and tropical plants.

Apply Actino-Iron® Biological Fungicide at a rate of 10-15 pounds per acre using properly calibrated application equipment. For best results, apply Actino-Iron® Biological Fungicide using a metering device mounted to deliver granules into the furrow just behind the furrow opener. Apply Actino-Iron® Biological Fungicide either at seeding or to established crops as a side-dress. Water in after application. Actino-Iron® Biological Fungicide can be used in

combination with or in rotation with other fungicides insecticides miticides fertilizers or micronutrients Consult other products labels for additional information or restrictions concerning tank mixing Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures Do not exceed label dosage rates This product cannot be mixed with any product containing a label prohibition against such mixing

Crops on which Actino-Iron® Biological Fungicide may be applied

Agronomic and Field Row Crops wheat buckwheat cotton canola safflower sunflower soybeans and other agronomic field and row crops

Alfalfa Hay and Forage alfalfa clover vetch trefoil

Small Grains rye rice sorghum millet and other small grains

Corn popcorn seed corn sweet corn and other corn crops

Potatoes all types of Irish potatoes sweet potatoes and other potatoes

Cucurbit Vegetables cucumbers melons gourds squash cantaloupe and other cucurbits

Fruiting Vegetables eggplant sweet peppers hot peppers tomatoes tomatillos and other fruiting vegetables

Herbs, Spices and Mints sage rosemary thyme peppermint dill basil oregano and other herbs and spices

Leafy Vegetables and Cole Crops broccoli Brussels sprouts cabbage cauliflower celery collards endive kale kohlrabi lettuce mustard greens parsley spinach and other leafy vegetable crops

Legume and Vegetable Crops snap and dry beans lentils edamame succulent and dry peas

Root/Tuber and Bulb Crops garlic onion sugarbeet carrot ginger ginseng horseradish turnip radish and other root/tuber/bulb crops

Berry Crops blueberry blackberry strawberry raspberry loganberry huckleberry gooseberry elderberry currant caneberry and other berry crops

Citrus orange grapefruit lemon tangerine tangelo lime pummel and other citrus crops

Grape wine grapes table grapes raisins and other grape crops

Pome Fruit apple crabapple pear quince mayhaw and other pome fruit

Stone Fruit apricot cherry, nectarine peach plum prune and other stone fruit

Tree Nuts almond pistachio pecan walnut filbert and other tree nuts

Tropical Fruit avocado mango papaya and other tropical fruits

Miscellaneous asparagus, bananas plantains, watercress mushrooms olives hops all crops grown for seed

STORAGE AND DISPOSAL

Do not contaminate water food or feed by storage and disposal

Pesticide Storage Store in a dry cool place out of direct sunlight and away from heat sources Keep from overheating or freezing Optimum storage temperature is 40°F to 85°F

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

Container Handling Nonrefillable container Do not reuse or refill this container Completely empty bag into application equipment by shaking and tapping sides and bottom to loosen clinging particles Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration Do not burn unless allowed by state and local ordinances

Limited Warranty / Disclaimer

Seller warrants that this product complies with the specifications expressed in this label To the extent consistent with applicable law Seller makes no other warranties and disclaims all other

warranties express or implied including but not limited to warranties of merchantability and fitness for the intended purpose To the extent consistent with applicable law Sellers liability for default breach or failure under this law shall be limited to the amount of the purchase price To the extent consistent with applicable law Seller shall have no liability for consequential damages

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Sublabel B Home & Garden Use

Actino-Iron® Biological Fungicide

Grade: 0-0-0

ACTIVE INGREDIENT

Streptomyces lydicus WYEC108* 0.013%

OTHER INGREDIENTS 99.987%

TOTAL 100.00% (by wt)

*Contains a minimum of 1 X 10⁶ colony forming units per gram

**Other Ingredients include Iron at a minimum of 15% and Humic Acid at a minimum of 1.00% Iron is derived from magnetite ore

GUARANTEED ANALYSIS	
Iron (Fe)	15.0%
Molybdenum (Mo)	0.001%
Iron derived from magnetite ore complexed by siderophores of <i>Streptomyces lydicus</i> WYEC 108	
ALSO CONTAINS NON PLANTFOOD INGREDIENT	
1% Humic Acid derived from decomposed plant residue	

ATTENTION This product contains molybdenum (Mo) Crops high in molybdenum can be toxic to ruminant animals Use only according to manufacturer's directions Information regarding the contents and levels of metals in this product is available on the Internet at <http://www.aapfco.org/metals.htm>

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

FIRST AID	
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
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment You may also contact 1-800-222-1222 for emergency medical treatment information	

See (back panel) (side panel) (insert) for (first aid) (additional precautionary statements) (and directions for use)

EPA Reg No 73314-2
EPA Establishment No 73314 TX 001

Natural Industries Inc
12320 Cutten Road
Houston TX 77066
Questions? (888) 261 4731

US Patent No 5 403 584

Net Weight (50 lbs) (25 lbs) (10 lbs)
Lot/Batch No

PRECAUTIONARY STATEMENTS

Hazards to humans and domestic animals - CAUTION Causes moderate eye irritation
Avoid contact with eyes or clothing Wash thoroughly with soap and water after handling and
before eating, drinking chewing gum using tobacco or using the toilet Remove and wash
contaminated clothing before reuse

USER SAFETY RECOMMENDATIONS

Users should

- Remove clothing immediately if pesticide gets inside Then wash thoroughly and put on clean clothing

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 ensure that wind or rain does not blow or wash pesticide off the treatment area Rinsing application equipment over the treated area will help avoid runoff to water bodies or drainage systems

DIRECTIONS FOR USE

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

Product Information (How it works) Actino-Iron® Biological Fungicide is a biological soil additive and fungicide for the suppression/control of soil borne plant root rot and damping-off fungi Actino-Iron® Biological Fungicide contains agricultural grade iron and humate (fulvic and humic acids) and is inoculated with the patented Actinovate® microorganism *Streptomyces lydicus* WYEC 108 The microorganism colonizes on the root systems of plants protecting the plant from soil borne diseases Fungi controlled include *Fusarium Pythium Rhizoctonia Phytophthora Phytophthora Phytophthora Aphanomyces Monosporascus Armillaria Sclerotinia Postia Verticillium Geotrichum* and other root decay fungi In addition use of Actino-Iron® Biological Fungicide will produce hardier more vigorous plants with increased root development Plants will be larger and greener with Actino-Iron® Biological Fungicide

Uses For use on roses bedding plants annuals and perennials flowering plants lawns fruits vegetables tropical foliage plants and ornamental shrubs

APPLICATION INSTRUCTIONS (HOW TO APPLY)

1 cup = 1/2 lb

Mixing Into Potting Soil or Compost

Prior to potting plants evenly mix 2 cups of Actino-Iron® Biological Fungicide into a 2.8 cubic foot bagged potting soil of your choice When potting repotting establishing new beds or installing new plants always add Actino-Iron® Biological Fungicide to the potting soil

Applying To Transplants or Established Plants

New roses and flowers Work 1/8 cup at the bottom of the planting hole Mix another 1/8 cup into soil used to fill around the roots of the transplant

Rose and flower beds Evenly spread on top of bed at a rate of 3 pounds per 750 square feet of bed Work into the soil by raking or tilling Water in immediately after application in order to move Actino-Iron® Biological Fungicide into the soil and to the roots

Potted perennials For potted perennials (6 pot size or smaller) use 1 teaspoon For larger perennials use 1-4 tablespoons Apply to the soil around the base of each plant Water in immediately after application in order to move Actino-Iron® Biological Fungicide into the soil and to the roots

Garden beds Apply 1 5-3 lbs per 500 square feet and till into the soil to a depth of 2-5 inches before planting Water in immediately after application in order to move Actino-Iron® Biological Fungicide into the soil and to the roots Reapply every 2-4 weeks throughout the warm months

Shrubs and bushes Apply 1/4 cup around the base of the plant and work into soil Water in immediately after application in order to move Actino-Iron® Biological Fungicide into the soil and to the roots

Trees Apply 1/8 cup for each 1 inch of trunk diameter Apply around base of tree and work into soil Water in immediately after application in order to move Actino-Iron® Biological Fungicide into the soil and to the roots

Lawn Application

Established lawns As a fertilizer top dressing for lawns Actino-Iron® Biological Fungicide will protect lawns from harmful root damaging fungi and provide long-term greening at the same time Water in immediately after application in order to move Actino-Iron® Biological Fungicide into the soil and to the roots Then follow the normal schedule for your particular type of grass

Cool-Season (Northern) Grasses

Apply 2 times/year Kentucky Bluegrass, Fescue Perennial Ryegrass

Memorial Day	10 lbs per 2 500 sq ft
August 1st	10 lbs per 2 500 sq ft

Warm-Season (Southern) Grasses

Apply 3 times/year Bermuda St Augustine Centipede & Zoysia

Easter (after turf breaks dormancy)	10 lbs per 2 500 sq ft
July 1 st	10 lbs per 2 500 sq ft
November 1st	10 lbs per 2,500 sq ft

New Lawns Mix into the top two inches of soil before seeding or sodding After third mowing of lawn apply one 10 lb bag per 2 500 sq ft of lawn Water in immediately after application in order to move Actino-Iron® Biological Fungicide into the soil and to the roots Then follow the normal schedule for your particular type of grass

Seed Bed	10 lbs per 2 500 sq ft
Sodding Preparation	10 lbs per 2 500 sq ft

Established and New Lawns Spreader Settings

<u>Drop Spreader Type</u>	
Ames/Earthway	21
Lawn Crafter (Quaker)	8
Red Devil	11
Republic EZ Grow	8
Scotts Accu Green series	10

STORAGE AND DISPOSAL

Do not contaminate water food or feed by storage and disposal

PESTICIDE STORAGE

Store in a cool dry place out of direct sunlight and away from heat sources Keep from overheating or freezing Optimum storage temperature is 40°F to 85°F

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 partially filled Call your local solid waste agency or (800) 858-7378 (National Pesticide Information Center) for disposal instructions Never place unused product down any indoor or outdoor drain

Limited Warranty / Disclaimer

Seller warrants that this product complies with the specifications expressed in this label To the extent consistent with applicable law, Seller makes no other warranties and disclaims all other warranties express or implied including but not limited to warranties of merchantability and fitness for the intended purpose To the extent consistent with applicable law Sellers liability for default breach or failure under this law shall be limited to the amount of the purchase price To the extent consistent with applicable law Seller shall have no liability for consequential damages

OPTIONAL LABEL CLAIMS

General label claims

- Controls Soil Borne Plant Diseases such as Pythium Phytophthora Verticillium Rhizoctonia Fusarium and root decay fungi
- Enhances Root Development and Plant Vitality
- For Greenhouse Nursery, Turf Grass Agricultural and Home & Garden Use
- Biological Soil Additive for Fungus Suppression/Control
- Contains (Complexed) Iron
- With Iron & Humic Acid
- Grade 0-0-0 (0-0-0-15)
- Biologically Activated Iron
- Protects and Greens
- Protects Roots from Disease Causing Fungi
- Promotes Beautiful Plants
- Protects and green
- Add to soil or compost or add a tsp to each transplant
- Soil Additive
- Provides long term greening
- Creates lush hardier lawns and plant
- Contains patented beneficial microbes

Sublabel B claims

- One bag treats 3 cubic feet or up to 50 plants
- Treats 2500 sq ft of lawn or 2 cubic yards of soil or compost
- Add a teaspoon to each plant
- For Lawns Trees Flowers and Vegetables