


71532-22

07-03-2007

5812112

1/10

 <p style="text-align: center;">U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460</p> <p>NOTICE OF PESTICIDE: <input checked="" type="checkbox"/> Registration <input type="checkbox"/> Reregistration (under FIFRA, as amended)</p>	<p>EPA Reg. Number: 71532-22</p>	<p>Date of Issuance: JUL 3 2007</p>
	<p>Term of Issuance: Conditional</p>	
	<p>Name of Pesticide Product: MetaStar ST</p>	
<p>Name and Address of Registrant (include ZIP Code): LG Life Sciences, Ltd. 20 Yoido-dong Youngdungpo-gu Seoul 150-721, Korea</p>		
<p>Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.</p>		
<p>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.</p> <p>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.</p> <p>This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A) provided that you:</p> <ol style="list-style-type: none"> 1. Submit and/or cite all data required for registration of your product under FIFRA sec 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4. 		
<p>Signature of Approving Official: <i>Mary L. Waller</i></p> <p>Mary L. Waller, Product Manager (21) Fungicide Branch, Registration Division (7505P)</p>		<p>Page 1 of 2</p> <p>Date: 7/3/2007</p>

2/10

2. Submit the following studies within 18 months of the date of this registration:
 - a. Storage Stability – OPPTS 830.6317
 - b. Corrosion Characteristics – OPPTS 830.6320

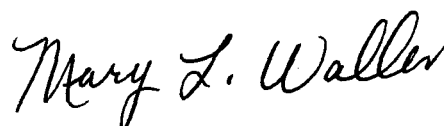
3. Make the following change to the label:
 - a. Change the product registration number to “EPA Reg. No. 71532-22”.
 - b. Add the Use Restrictions to the Seed Treatment table which begins on page 4. The following use restrictions must be included in the row for “canola, mustard seed, and rapeseed: “Do not harvest mustard greens. Rape greens grown and harvested from MetaStar ST treated seed must not be used for human and feed consumption. Rapeseed grown and harvested from MetaStar ST treated seed is only for industrial uses and cannot be used for edible oil or any other human/feed consumption.”

4. Submit one copy of the revised final printed label for the record before the product is released for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 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. A copy of the Agency’s Product Chemistry Review dated 4/26/07 is enclosed for your records.

Sincerely,



Mary L. Waller
Product Manager (21)
Fungicide Branch
Registration Division (7505P)

Enclosure: Label stamped “Accepted with Comments”
Product Chemistry Review
Acute Toxicity Similarity Clinic Determination

3/10

MetaStar ST Seed Treatment Fungicide

For use as a seed treatment for control of systemic downy mildew, Pythium seed rot, Pythium damping-off, and early season Phytophthora diseases of certain crops

Active Ingredient:

Metalaxyl: <i>N</i> -(2,6-dimethylphenyl)- <i>N</i> -(methoxyacetyl) alanine methyl ester.....	28.35%
Inert Ingredients:.....	71.65%
Total:	100.00%

Contains 2.65 lbs. Metalaxyl per gallon.

**KEEP OUT OF REACH OF CHILDREN
WARNING AVISO**

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

Product of South Korea
Formulated in the USA

LG Life Sciences, Ltd.
20 Yoido-dong
Youngdungpo-gu
Seoul 150-721, Korea

EPA Reg. No.: 71532-EE
EPA Est. No.: XXXXX-XXX-XXX

Net Contents:

**ACCEPTED
with COMMENTS
In EPA Letter Dated
JUL 3 2007**
**Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
71532-22**

4/10

FIRST AID	
If on Skin or Clothing:	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:	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 Swallowed:	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.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the Poison Control Center at 1-800-222-1222.	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

WARNING/AVISO

Causes skin irritation. Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Do not get on skin or on clothing. Avoid contact with skin. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves such as nitrile, butyl, neoprene, and/or barrier laminate
- Chemical-resistant footwear plus socks

Also, wear a chemical resistant apron when mixing or loading.

Follow manufacturer's instructions for cleaning/maintaining PPE. If not such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing 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 clothing.

5/10

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 apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwater or rinsate.

Groundwater Advisory Statement

This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

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 24 hours. Exception: If the seed is treated with the product and the treated seed 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 such as barrier laminate or nitrile rubber or neoprene rubber or Viton.
- Chemical resistant footwear plus socks

In California – Only for use in commercial seed treating establishments. Not allowed for “on-farm” use.

NOTE: Seed treated commercially or for sale must be dyed an unnatural color using an EPA approved dye before sale.

6/10

Federal law requires that bags containing treated seed shall be labeled with the following information:

This seed has been treated with **MetaStar ST** fungicide which contains the active ingredient metalaxyl. Do not use for feed, food or oil purposes. Store away from feeds and foodstuffs.

Use Restrictions

- Do not harvest mustard greens.
- Rape greens grown and harvested from **MetaStar ST** treated seed must not be used for human and feed consumption. Rapeseed grown and harvested from **MetaStar ST** treated seed is only for industrial uses and cannot be used for edible oil or any other human/feed consumption.

MetaStar ST is a systemic fungicide seed dressing specifically for control of systemic downy mildews, *Pythium* and *Phytophthora spp.* For control of other soilborne diseases, combination of Captan and Vitavax® registered formulations are compatible. Do not use with other seed treatment products unless previous experience assures compatibility.

MetaStar ST may be applied as a water-based slurry with other registered seed treatment insecticides and fungicides through standard slurry or mist-type commercial seed treatment equipment.

NOTE: MetaStar ST is a systemic fungicide having a specific mode of action. **MetaStar ST** could be subject to development of resistant strains of fungi. Development of resistance cannot be predicted. Therefore, LG Life Sciences cannot assume liability for crop damage resulting from resistant strains of fungi. Consult with your State Agricultural Experiment Station or Extension Service Specialist for guidance and ways to control any possible **MetaStar ST** resistant strains of fungi which may occur. **FAILURE TO FOLLOW DIRECTIONS ON THIS LABEL MAY RESULT IN CROP INJURY OR POOR DISEASE CONTROL.**

SEED TREATMENT

SEED	INSTRUCTIONS FOR USE
Canola* Mustard Seed* Rapeseed*	For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.25-0.5 fl. oz. per 100 lbs. of seed. *Not registered for use in California.
Carrots*	For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.7 fl. oz. per 100 lbs. of seed. *Not registered for use in California.
Cotton	For <i>Pythium</i> seed rot and damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.75-1.5 fl. oz. per 100 lbs. of seed.
Soybeans	For <i>Pythium</i> damping-off and early season <i>Phytophthora</i> control: Apply MetaStar ST as a seed treatment at the rate of 0.75-1.5 fl. oz. per 100 lbs. of seed.
Spinach*	For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.75 fl. oz. per 100 lbs. of seed. Do not apply MetaStar ST to spinach which is destined to be grown in the greenhouse. Containers or bags containing MetaStar ST -treated spinach seed must be labeled with this restrictions: *Not registered for use in California.

7/10

Peanuts*	For <i>Pythium</i> seed rot and damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.75 fl. oz. per 100 lbs. of seed. *Not registered for use in California.
Sorghum	For control of <i>Pythium</i> damping-off apply 0.375-0.75 fl. oz. of MetaStar ST per 100 lbs. of seed applied as a seed treatment. For control of systemic downy mildew (races susceptible to chemical control), apply 0.75-1.5 fl. oz. MetaStar ST per 100 lbs. of seed on cultivars which possess sorghum downy mildew resistance. To those cultivars which do not possess resistance to a particular race of sorghum downy mildew in heavily infected areas with recent severe history, apply 1.5-3.0 fl. oz. of MetaStar ST per 100 lbs. of seed as a seed treatment. Only high quality sorghum seed (90% germination and above) should be treated with MetaStar ST .
Sunflowers	For control of systemic downy mildew: Apply MetaStar ST as a seed treatment at the rate of 1.5-3.0 fl. oz. per 100 lbs. of seed.
Beets, Garden Sugar beets	For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.7 fl. oz. per 100 lbs. of seed.
Forage Legumes	Alfalfa, clover, lespedeza, beans (for forage), soybeans (for forage), soybean hay, peanuts (for forage), peanut hay, peas (for forage), pea vine hay, cowpeas (for forage), cowpea hay, trefoil, vetch and velvet beans (for forage). For <i>Pythium</i> damping-off and early season <i>Phytophthora</i> control: Apply MetaStar ST as a seed treatment at the rate of 0.75-1.5 fl. oz. per 100 lbs. of seed.
Grain Crops	Wheat, barley, rye, oats, millet, milo, corn (field corn, sweet corn and popcorn), buckwheat and triticale. For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.75 fl. oz. per 100 lbs. of seed. For systemic downy mildew control of sweet corn: Apply MetaStar ST as a seed treatment at the rate of 1.5 fl. oz. per 100 lbs. of seed.
Rice*	For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.75-1.5 fl. oz. per 100 lbs. of seed. If using MetaStar ST treated rice do not use metalaxyl or mefenoxam for control of <i>Pythium</i> in water-seeded rice. *Not registered for use in California.
Seed and Pod Vegetables	Black-eyed peas, chickpeas (Garbanzos), cowpeas, dill, edible soybeans, field beans, field peas, garden peas, green beans, kidney beans, lima beans, lupines, navy beans, okra, peas, pole beans, snap beans, spring beans, wax beans, and lentils. For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.75 fl. oz. per 100 lbs. of seed. For early season <i>Phytophthora</i> control: Apply MetaStar ST as a seed treatment at the rate of 0.75 fl. oz. per 100 lbs. of seed. For control of <i>Pythium</i> damping-off and systemic downy mildew of peas: Apply MetaStar ST as a seed treatment at the rate of 1.5 fl. oz. per 100 lbs. of seed.
Cucumbers*	For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment

8/10

	at the rate of 0.75 fl. oz. per 100 lbs. of seed. *Not registered for use in California.
Turf Grasses	For <i>Pythium</i> damping-off control on golf courses, home lawns reclamation and erosion control projects: Apply MetaStar ST as a seed treatment at the rate of 1.5 fl. oz. per 100 lbs. of seed.
Forage Grasses	Grasses grown for hay, grazing or silage corn (fodder or silage), sorghum (hay or silage), and small grain grown for hay, grazing or silage. For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.75 fl. oz. per 100 lbs. of seed.

SEED TREATMENT-EXPORT USE:

For treatment of the following seed for export only to countries requiring treatment with metalaxyl before importation.

SEED	INSTRUCTIONS FOR USE
Brassica (Cole) Leafy Vegetables	For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.75-1.5 fl. oz. per 100 lbs. of seed.
Canola	For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.5-1.7 fl. oz. per 100 lbs. of seed (32-110 ml per 100 kg of seed).
Corn	For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.75-1.5 fl. oz. per 100 lbs. of seed. For systemic downy mildew control: Apply MetaStar ST as a seed treatment at 3.0 fl. oz. per 100 lbs. of seed.
Cucurbit Vegetables	For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.75 fl. oz. per 100 lbs. of seed.
Fruiting Vegetables	For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.75-1.5 fl. oz. per 100 lbs. of seed.
Leafy Vegetables	For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.75-1.5 fl. oz. per 100 lbs. of seed.
Onions	For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.75-1.5 fl. oz. per 100 lbs. of seed.
Millet	For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.75-1.5 fl. oz. per 100 lbs. of seed. For systemic downy mildew control: Apply MetaStar ST as a seed treatment at 2.5 fl. oz. per 100 lbs. of seed.
Peas	For <i>Pythium</i> damping-off and early season <i>Phytophthora</i> control: Apply MetaStar ST as a seed treatment at the rate of 3.5 fl. oz. per 100 lbs. of seed.
Root and Tuber Vegetables	For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.75-1.5 fl. oz. per 100 lbs. of seed. Do not apply MetaStar ST to potatoes.
Sorghum	For <i>Pythium</i> damping-off control: Apply MetaStar ST as a seed treatment at the rate of 0.75-1.5 fl. oz. per 100 lbs. of seed. For systemic downy mildew control: Apply MetaStar ST as a seed treatment at 5.25 fl. oz. per 100 lbs. of seed.

9/10

Sunflowers	For systemic downy mildew control: Apply MetaStar ST as a seed treatment at 9.0 fl. oz. per 100 lbs. of seed.
------------	--

FOR EXPORT ONLY - NOT FOR DOMESTIC SALES OR USE

Directions For Use at Reduced Rates in Combination With Other Fungicides

MetaStar ST is a systemic fungicide seed dressing which may be applied in combination with other EPA-registered fungicides to aid in control of *Pythium*. **MetaStar ST** may be applied as a water-based slurry through standard slurry of mist-type commercial seed treatment equipment.

SEED	INSTRUCTIONS FOR USE
Corn (field), Wheat, Oats, Barley, Rye	To aid in the control of seed decay and damping-off caused by <i>Pythium</i> : Apply MetaStar ST as a commercial seed treatment at the rate of 0.10-0.375 fl. oz. per 100 lbs. of seed. Apply <u>only</u> in combination with EPA registered rates of BAYER CROPSCIENCE broad-spectrum seed treatment fungicides.
Soybeans, Field beans, Kidney beans, Navy beans, Pinto beans, Lentils, Peas	To aid in the control of seed decay and damping-off caused by <i>Pythium</i> : Apply MetaStar ST as a commercial seed treatment at the rate of 0.10-0.375 fl. oz. per 100 lbs. of seed. Apply only in combination with EPA registered rates of broad-spectrum seed treatment fungicides.
Sunflowers	To aid in the control of seed decay and damping-off caused by <i>Pythium</i> : Apply MetaStar ST as a commercial seed treatment at the rate of 0.10-0.375 fl. oz. per 100 lbs. of seed. Apply only in combination with EPA registered rates of broad-spectrum seed treatment fungicides.
Peanuts*	To aid in the control of seed decay and damping-off caused by <i>Pythium</i> : Apply MetaStar ST as a commercial seed treatment at the rate of 0.10-0.375 fl. oz. per 100 lbs. of seed. Apply only in combination with EPA registered rates of broad-spectrum seed treatment fungicides. *Not registered for use in California.
Rice*	To aid in the control of seed decay and damping-off caused by <i>Pythium</i> : Apply MetaStar ST as a commercial seed treatment at the rate of 0.10-0.375 fl. oz. per 100 lbs. of seed. Apply only in combination with EPA registered rates of broad-spectrum seed treatment fungicides. *Not registered for use in California.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

Pesticide Storage: Store at temperatures above 40° F. Crystals may form at lower storage temperatures. If this occurs, place the product in a warm room (68°F or above) and roll or shake the container at frequent intervals until all crystals are dissolved.

For minor spills, leaks, etc. follow all precautions indicated on this label and clean-up immediately. Take special care to avoid contamination of equipment and facilities during clean-up procedures and disposal of wastes.

Pesticide Disposal: Wastes resulting from the use of this product are toxic. Improper disposal of unused pesticide spray mixture, or rinsate is a violation of Federal law. Pesticide, spray mixture or rinsate that cannot be used according to label instructions must be disposed of according to Federal, State or local procedures. For guidance in proper disposal methods,

contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional office.

Container Disposal: Do not reuse empty container. Triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Returnable/Refillable Containers: Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

Conditions of Sale and Limitation of Warranty and Liability

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying and using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of LG Life Sciences, Ltd. or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold LG Life Sciences, Ltd. and Seller harmless for any claims relating to such factors.

LG Life Sciences, Ltd. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or LG Life Sciences, Ltd. and Buyer and User assume the risk of any such use. To the extent permitted by law, LG Life Sciences, Ltd. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, LG Life Sciences, Ltd. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT PERMITTED BY LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF LG LIFE SCIENCES, LTD. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF LG LIFE SCIENCES, LTD. OR SELLER, THE REPLACEMENT OF THE PRODUCT.

LG Life Sciences, Ltd. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty of liability, which may not be modified except by written agreement signed by a duly authorized representative of LG Life Sciences, Ltd.