



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

APR 8 - 2008

Attention: Khalid Akkari
BASF Corporation
P.O. Box 13528
26 Davis Drive
Research Triangle Park, NC 27709

Subject: BAS 516 ST Fungicide
EPA Registration No. 7969-248; Petitions 7F7169, 5F7002
Your amended label associated with the cotton seed-treatment new use petitions, product application dated December 27, 2006

Dear Dr. Akarri,

The amendment referred to above, submitted in connection with registration under FIFRA, sec. 3(c)(7)(B), has been reviewed and is acceptable provided that you comply with the conditions as specified herein, and submit a revised final printed label within 45 days of the date hereon, which makes the changes listed below. A copy of the label stamped "Accepted with Comments" is included for your records.

1. By the date of March 27, 2010, the registrant must submit, to the Agency, data addressing the following deficiencies.
 - 1a. Pyraclostrobin ecotoxicity data *Estuarine/marine Invertebrate Lifecycle Toxicity Test 72-3(c)* must be submitted by the registrant. Since this data had not been previously submitted, the ACR method (Acute to Chronic ratio) derived from freshwater invertebrate toxicity data was used, by the Agency, to estimate to a NOAEC (No Observable Adverse Effect Concentration) value for estuarine/marine invertebrates, which exceeded the LOC for Listed Species for estuarine/marine invertebrates. Use the pyraclostrobin TGAI as the test substance.
 - 1b. Additionally, submit fate and transport data, for pyraclostrobin, to satisfy the outstanding guideline studies for *Anaerobic Aquatic Metabolism (Subdivision-N 162-3)*, and *Aerobic Aquatic Metabolism (Subdivision-N 162-4)*. Because the latter had been previously submitted, but found to be unacceptable.

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BAS 516 ST Fungicide
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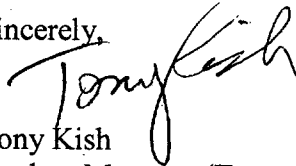
2. The following National Pollutant Discharge Elimination System (NPDES) statement (as outlined in PR Notice 93-10) must be added to the 'Environmental Hazards' section of the label, if the subject product's container is equal to or exceeds 5 gallons or 50 lbs. If not sold in these sizes, delete the triple rinse directions, on page 3, for product containers that are equal to, or exceed 50lbs.

"Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA."

If you have any questions, please contact Bryant Crowe by phone at (703) 305-0025 or via email at crowe.bryant@epa.gov.

Enclosure

Sincerely,



Tony Kish
Product Manager (Team 22)
Fungicide Branch
Registration Division (7505P)



The Chemical Company

Group 7 11 Fungicide

ACCEPTED with COMMENTS In EPA Letter Dated APR 8 2008

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

7969-248

BAS 516 ST

seed treatment fungicide

For use in brassicas, bulb vegetables, cotton, cucurbits, legume vegetables, soybean and sunflower.

Active Ingredients:

pyraclostrobin: (carbamic acid, [2-[[[1-(4-chlorophenyl)-1H-pyrazol-3-yl]oxy]methyl]phenyl]methoxy-, methyl ester)	12.8%
boscalid: 3-pyridinecarboxamide,2-chloro-N-(4-chloro(1,1'-biphenyl)-2-yl) ...	25.2%
Other Ingredients:	<u>62.0%</u>
Total:	100.0%

EPA Reg. No. 7969-248

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCIÓN

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

See inside booklet for complete **First Aid, Precautionary Statements, Directions For Use, and Conditions of Sale and Warranty.**

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

Net Contents:

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 to 20 minutes. • 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.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after 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 by mouth to mouth, if possible. • Call a poison control center or doctor for further 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 BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

Personal Protective Equipment (PPE)
Some materials that are chemically resistant to this product are listed below. For more options, refer to **Category A** on an EPA chemical-resistance category selection chart. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

- Applicators and other handlers must wear:**
- Long-sleeved shirt and long pants
 - Chemical-resistant gloves made of any waterproof material (such as nitrile, butyl, neoprene and/or barrier laminate)
 - Shoes plus socks

Follow the manufacturer's instructions for cleaning and 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:**
- 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 into clean clothing.

Environmental Hazards
This pesticide is toxic to fish and aquatic invertebrates. **DO NOT** contaminate water when disposing of equipment washwaters 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. 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.

Storage and Disposal

DO NOT contaminate water, food, or feed by storage or disposal.

Pesticide Storage. Store in original containers only. Keep container closed when not in use. **DO NOT** store near food or feed. In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to label.

Pesticide Disposal. Wastes resulting from using this product may be disposed of on-site or at an approved waste disposal facility. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 50 pounds) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Triple rinse containers too large to shake (capacity > 50 pounds) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

In Case of Spill

In case of large-scale spillage regarding this product, call:
CHEMTREC 1-800-424-9300
BASF Corporation 1-800-832-HELP (4357)

Steps to be taken in case this material is released or spilled:

Dike and contain spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing and wash affected skin areas with water. Wash clothing before reuse. Keep spill out of all sewers and open bodies of water.

General Information

This package contains **BAS 516 ST seed treatment fungicide**, a water dispersible granule (WG). **BAS 516 ST** is a broad spectrum fungicide that provides preventive seed and seedling protection against seedborne fungi causing seed decay and the soilborne pathogens *Rhizoctonia solani*, *Penicillium* spp. and *Fusarium* spp. **BAS 516 ST** may be applied in conjunction with applications of other registered seed treatment and crop protection products. Make all applications according to the use directions in this label. Use the higher rates of **BAS 516 ST** when disease pressure is expected to be high.

Resistance Management

The active ingredients in **BAS 516 ST**, boscalid and pyraclostrobin, belong to the groups of respiration inhibitors classified by the EPA as **Carboxamides** and **Quinone Outside Inhibitors (QoI)** or **Target Site of Action Group 7** and **Target Site of Action Group 11** fungicides, respectively. Due to the minimal amounts of active ingredient in **BAS 516 ST** applied to the seed that relocate to the upper parts of the plant, the potential for development of resistance to both fungicides is extremely low. Seed treatments of **BAS 516 ST** can, therefore, be followed by foliar use and resistance management guidelines of foliar use fungicides containing boscalid, pyraclostrobin, or both (**Cabrio® EG herbicide**, **Endura® herbicide**, **Headline® herbicide**, or **Pristine® fungicide**) as specified on the respective labels.

Application Instructions

For use on "crop" seed at commercial treatment facilities.
Not for use on farm.

Apply **BAS 516 ST** as a water-based slurry using standard slurry or mist-type seed treatment application equipment. The exact amount of water needed to provide the slurry rate (ml/100 kg or oz/cwt of seed) for optimum coverage is difficult to predict since weather conditions (hot or cold), seed type and surface, and equipment used all have a bearing on coverage. Consult a seed treatment specialist regarding slurry rates for the crop seed to be treated with **BAS 516 ST**. The required amount of **BAS 516 ST** should then be mixed with the specified amount of water that will provide uniform and complete coverage on the seed surface. Uniform application on seed and complete seed coverage are necessary for seed safety and best disease protection.

Seed must be sound and well cleaned prior to treatment. The purchaser of **BAS 516 ST seed treatment fungicide** is responsible for ensuring that all seed treated with this product are adequately dyed with a suitable color to prevent its accidental use as food for man or feed for animals. Refer to 21CFR, Part 2.25 and 40CFR 153.155(b)(1). Use an EPA-approved dye or colorant that imparts an unnatural color to the seed. Any dye or colorant added to treated seed must be cleared for use under 40CFR, Part 180.900, "**Exemptions from the requirement of a tolerance**". Federal regulations have established official tolerances or exemptions from tolerances for residues on food and forage crops that should not be exceeded when the product (dye or colorant) is used at labeled rates.

Consult the seed treatment specialist for calibration and operation procedures of the seed treatment equipment being used. Mechanical agitation is required for proper mixing of **BAS 516 ST**. Prepare no more mixture of **BAS 516 ST** than is needed for immediate treating. Add 3/4 of the required volume of water to the mix tank. With agitation running, add the required amount of **BAS 516 ST** in the tank along with other seed treatment components.

Add the remaining 1/4 of the required water. Follow the mixing sequence listed below. Agitate thoroughly before and during application.

BAS 516 ST With Tank Mix Partners

BAS 516 ST mixes easily with water and other water-based seed treatments manufactured by BASF Corporation. When using **BAS 516 ST** in a tank mixture with other seed treatment products, observe all directions for use, crops/sites, use rates, dilution ratios, precautions, and limitations that appear on the tank mix partner label. No label dosage or application rate should be exceeded, and the most restrictive label precautions and limitations should be followed. **BAS 516 ST** should not be mixed with any product that prohibits such mixing. All applications should be made according to the use directions.

When mixing **BAS 516 ST** with products from other manufacturers, the compatibility should be tested prior to use by conducting a jar test as follows:

1. Mix all intended seed treatments with the appropriate amount of water in a clear glass container.
2. Mix well and allow to sit for one hour.
3. Remix and observe for incompatibility.

Physical compatibility is only part of compatibility. Testing also needs to be done with the seed to make sure the combination of products does not have detrimental effects on the seed.

Tank Mixing Instructions

1. Add 3/4 of the required amount of water to the mix tank and turn on the agitation. Mechanical agitation is preferred.
2. Follow the following mixing sequence: dye or colorant, wettable powders, soluble powders, flowable formulations, emulsifiable concentrates, and remaining 1/4 of

the required water. The 1/4 of the required water as the last item for addition to the premix tank can be used as rinsate for the chemical container or to adjust the total slurry to compensate for water displacement by powdered products.

3. Maintain agitation until the entire slurry mixture has been used.
4. Ensure that seed is dry prior to bagging.

NOTE: Federal law requires that bags of treated seeds shall be labeled with the following: "This seed has been treated with boscalid and pyraclostrobin fungicides.

DO NOT use for food, feed or oil purposes. Store away from food and feedstuffs. Use with an EPA-approved dye that imparts an unnatural color to the seed."

Crop-specific Use Directions

Crop	Target Disease	Product Use Rate in ozs/100 lbs Seed (lb ai/100 lbs seed)
Brassica vegetables	Seed and seedling disease (damping off) caused by <i>Rhizoctonia solani</i> , <i>Phoma lingam</i> and other seedborne fungi causing seed decay, seedling damping off, including <i>Cladosporium</i> spp., <i>Penicillium</i> spp.	2.5 to 5 (0.06 to 0.12)
Bulb vegetables	Seed and seedling disease (damping off) caused by seedborne fungi (<i>Botrytis</i> , <i>Aspergillus</i> and <i>Penicillium</i> spp.) causing seed decay, seedling damping off	2.5 to 5 (0.06 to 0.12)
Cotton¹	Seed and seedling disease (damping off) caused by <i>Rhizoctonia solani</i> , seedborne fungi causing seed decay, and seedling damping off	2.5 to 5 (0.06 to 0.12)
Cucurbits	Seed and seedling disease (damping off) caused by <i>Rhizoctonia solani</i> , seedborne fungi causing seed decay, and seedling damping off	0.63 to 5 (0.015 to 0.12)
<p>Legume vegetables (Dried shelled peas and beans, except cowpea, field pea, and grain lupin)</p> <p>Broad bean, Chickpea, Fava bean, Guar, Lablab bean, Lentil, Pigeon pea</p> <p><i>Lupinus</i> spp.: Sweet lupin, White lupin, White sweet lupin</p> <p><i>Phaseolus</i> spp.: Field bean, Kidney bean, Black bean, Pink bean, Lima bean, Navy bean, Pinto bean, Tepary bean</p> <p><i>Vigna</i> spp.: Adzuki bean, Black-eyed pea, Catjang, Crowder pea, Moth bean, Mung bean, Rice bean, Southern pea, Urd bean</p>	Seed and seedling disease (damping off) caused by <i>Rhizoctonia solani</i> , seedborne fungi causing seed decay, seedling damping off	0.63 to 2.52 (0.015 to 0.06)
Soybean (<i>Glycine</i> spp.)	Seed and seedling disease (damping off) caused by <i>Rhizoctonia solani</i> , seedborne fungi causing seed decay, seedling damping off	0.63 to 2.52 (0.015 to 0.06)
Sunflower	Seed and seedling disease (damping off) caused by <i>Rhizoctonia solani</i> , seedborne fungi causing seed decay, seedling damping off	1.25 to 2.5 (0.03 to 0.06)

¹For control of seed and seedling disease (damping off) caused by *Pythium* spp., use **BAS 516 ST seed treatment fungicide** only in conjunction with labeled rates of mefenoxam- or metalaxyl-containing seed treatment products.

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, 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 the presence of other or untested or unapproved materials, seed of low quality or low vigor or low germination, use of the product in a manner inconsistent with its labeling, misapplication of the product, or weather conditions at planting or environmental conditions during seed storage, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

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