

**SPECIMEN  
LABEL**

# THIABENDAZOLE 4L ST

**ACTIVE INGREDIENT:**

Thiabendazole: 2-(4-thiazolyl)benzimidazole\* ..... 42.3%

**OTHER INGREDIENTS:** ..... 57.7%

**TOTAL:** ..... 100.0%

4.0 lbs. active ingredient per gallon.

**KEEP OUT OF REACH OF CHILDREN**

## **CAUTION**

**See additional First Aid, Precautionary Statements, Directions for Use,  
and Storage and Disposal inside booklet.**

*Fungicide*

Manufactured for:  
**ALBAUGH, LLC**  
1525 NE 36th Street  
Ankeny, IA 50021

EPA Reg. No. 42750-226  
AD021218



## FIRST AID

<b>IF SWALLOWED</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>HOT LINE NUMBER</b>	
For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call 1-800-424-9300.	

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

# CAUTION

Harmful if swallowed. Causes eye and skin irritation. Avoid contact with eyes, skin, and clothing. Wash thoroughly with soap and water after handling.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

**Mixers, loaders, applicators and other handlers must wear:**

- Long-sleeved shirt
- Long pants
- Shoes plus socks

In addition to the above, handlers making application to mushroom houses using hand held sprayers must wear chemical resistant gloves.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, 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/PPE immediately if pesticides get 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

This pesticide is toxic to fish. Do not apply when weather conditions favor runoff or drift from the target area. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of waste.

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.

**NOT FOR USE IN FORMULATING AGRICULTURAL PESTICIDES.**

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## **DIRECTIONS FOR USE**

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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.

Manual seed treatments are prohibited.

### **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 12 hours.

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

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, AND/OR ILLEGAL RESIDUES.**

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## **GENERAL INFORMATION**

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THIABENDAZOLE 4L ST is a systemic fungicide which aids in the control of many important plant diseases. If treatment is not effective following use of THIABENDAZOLE 4L ST as recommended, a tolerant strain of fungus may be present. Consideration should be given to prompt use of other suitable non-benzimidazole fungicides. THIABENDAZOLE 4L ST is not for use in formulating agricultural products.

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## **CROP USE DIRECTIONS**

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**GENERAL – SHAKE OR STIR WELL BEFORE USE.**

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## **SEED TREATMENT**

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**Treated seed, granules, exposed on soil surface may be hazardous to wildlife. Cover or collect seeds, granules spilled during loading.**

### **SEED TREATMENT**

Treatment of highly mechanically scarred or damaged seed, or seed known to be of low vigor and poor quality, except for the purpose of curative control of existing disease pests, may result in reduced germination and/or reduction of seed and seedling vigor. Treat using equipment similar to that planned for treating the total seed lot. Conduct germination tests on a small portion of seed before committing the total seed lot to a selected seed treatment. Due to seed quality and seed storage conditions beyond the control of Albaugh, no claims are made to guarantee the germination of carry-over seed or propagating material for all crop seed.

Seed treatment with THIABENDAZOLE 4L ST fungicide will not provide post-emergence protection of plants grown in or near infected fields.

For protection against other seed- and soil-borne diseases not controlled by THIABENDAZOLE 4L ST, it is highly recommended that a compatible seed treatment fungicide be used at EPA registered label rates and tank mixed in combination with THIABENDAZOLE 4L ST. These fungicides must show safety on treated seed, alone or in combination with THIABENDAZOLE 4L ST. Consult the label for appropriate use rates and follow all use instructions.

### **Mixing Procedures**

Apply THIABENDAZOLE 4L ST as a water-based slurry utilizing standard slurry seed treatment equipment which provides uniform seed coverage. Uneven or incomplete seed coverage may not give the desired level of disease control. Thoroughly mix the recommended amount of THIABENDAZOLE 4L ST into the required amount of water for the slurry treater and dilution rate to be used. Follow the manufacturer application instructions for the seed treatment equipment being used. Maintain constant agitation of the slurry during the treatment. Allow seed to dry before bagging.

### **Tank Mixtures**

Confirm physical compatibility, seed safety, seed safety in stored seed, and biological efficacy before tank mixing with other seed treatment products.

Follow the label directions for the most restrictive of label precautions and limitations. This product cannot be mixed with any product containing a label prohibiting such mixing.

### **SEED BAG LABEL REQUIREMENTS**

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

- This seed has been treated with thiabendazole fungicide.
- Do not use for feed, food, or oil purposes.

In addition, include the following statements on bags containing seeds treated with THIABENDAZOLE 4L ST:

- Store treated seed away from food and feedstuffs.
- Do not allow children, pets or livestock to have access to treated seeds.
- Wear long pants, long-sleeved shirt and protective gloves when handling treated seed.
- Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading and planting.
- Dispose of all excess treated seed.
- Leftover treated seed may be double sown around the headland or buried away from water sources in accordance with local requirements.
- Do not contaminate bodies of water when disposing of planting equipment wash water.
- This pesticide is toxic to fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff may be hazardous to aquatic organisms in water adjacent to treated areas.
- Contain any product spills or equipment leaks and dispose of wastes according to the disposal instructions on this label.
- Dispose of seed packaging or containers in accordance with local requirements.
- Do not plant any crop, other than soybeans, dry peas, barley, wheat, oats, rye, and triticale, brassica head and stem subgroup 5A, cucurbit vegetable cropgroup 9, root vegetables (except sugarbeets) subgroup 1B, bulb vegetables subgroup 3-07A, spinach and alfalfa, within 30 days to fields in which treated seeds were planted.
- Use crop-specific seeding rates according to local agricultural practice.
- Regardless of type of application, do not apply more than 0.15 lb thiabendazole per acre (68.0 grams ai/A) per year. This seed has been treated with xx mg active ingredients (ai) of Thiabendazole/seed.

Use an EPA-approved dye or colorant that imparts an unnatural color to the seed as required in 40 CFR 153.155(c). Do not feed vines or hay grown from treated seed to livestock.

Crop	Target Diseases	Use Rate Mg ai/seed	Use Rate fl. oz. product/ 100 lb seed	Remarks
<b>Cereals, small grain Barley</b>	Seedling diseases caused by <i>Fusarium</i> spp.	0.03	2.6	fl. oz. product/100 lbs seed calculations assume an average seed size of 12,500 seeds/lb
<b>Oats</b>	Seedling diseases caused by <i>Fusarium</i> spp.	0.03	3.4	fl. oz. product/100 lbs seed calculations assume an average seed size of 16,400 seeds/lb
<b>Rye</b>	Seedling diseases caused by <i>Fusarium</i> spp.	0.03	3.2	fl. oz. product/100 lbs seed calculations assume an average seed size of 15,600 seeds/lb
<b>Triticale</b>	Seedling diseases caused by <i>Fusarium</i> spp.	0.03	2.6	fl. oz. product/100 lbs seed calculations assume an average seed size of 12,750 seeds/lb
<b>Wheat, Winter and Spring</b>	Seed-Borne Fusarium Scab only	0.0016	0.17	fl. oz. product/100 lbs seed calculations assume an average seed size of 15,000 seeds/lb  For best control of seed-borne Fusarium scab THIABENDAZOLE 4L ST should be combined with another product with seed-borne Fusarium activity.
<b>Wheat, Winter and Spring</b>	Seed-Borne Common Bunt (Stinking Smut)	0.013	1.3	fl. oz. product/100 lbs seed calculations assume an average seed size of 15,000 seeds/lb
	Soil-Borne Common Bunt (Stinking Smut)	0.025	2.6	fl. oz. product/100 lbs seed calculations assume an average seed size of 15,000 seeds/lb
<b>Winter Wheat Only</b>	Dwarf Bunt  Not for Use in California	0.025–0.039	2.6–3.9	For normal or late winter wheat plantings. Use the lower rate on late winter wheat plantings only. For best control of Dwarf Bunt THIABENDAZOLE 4L ST should be combined with a pre-mix product containing difenoconazole.

Crop	Target Diseases	Use Rate (mg active ingredient per kernel*)	Use Rate (fl. oz./80,000 kernel count)	Remarks
<b>Corn</b> Field Pop Sweet  (includes seed production) Not For Use in California	Seed-borne and soil-borne fungi causing decay, damping-off, and seedling blight.  Seed-borne head smut ( <i>Sporisorium reilianum</i> )  Seedling damping-off ( <i>Rhizoctonia</i> spp., <i>Penicillium</i> spp., <i>Pythium</i> spp., and <i>Fusarium</i> spp.)	0.043–0.057 mg	0.30–0.41	*Target rate is 0.05 mg active ingredient per kernel.  Treated sweet corn should be planted and not carried over to the following year.

Crop	Target Diseases	Use Rate mg Ai/seed	Use Rate Fl. Oz. product/ 100 lb seed (g ai/100 kg)
<b>Legume Vegetables (Succulent or Dried) Crop Group 6<sup>1</sup></b> <b>BEANS</b> Bean ( <i>Lupinus</i> spp.): includes grain lupin, sweet lupin, white lupin and white sweet lupin Bean ( <i>Phaseolus</i> spp.): includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean and wax bean Bean ( <i>Vigna</i> spp.): includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean and yardlong bean Broad bean (fava bean) ( <i>Vicia faba</i> ) Guar ( <i>Cyamopsis tetragonoloba</i> ) Jackbean ( <i>Canavalia ensiformis</i> ) Lablab bean (hyacinth bean) ( <i>Lablab purpureus</i> ) Sword bean ( <i>Canavalia gladiata</i> )	Seed-borne <i>Ascochyta</i> and <i>Phoma</i> spp. which cause Ascochyta Blight (foot rot, basal stem rot or black stem) <sup>2</sup> Seed decay, seedling wilt, and damping-off caused by <i>Phomopsis</i> spp. Seedling diseases caused by <i>Fusarium</i> spp.	0.035 – 0.200	0.30 – 1.72 <sup>4</sup> (10 – 55)
<b>CHICKPEA</b> Chickpea (Garbanzo Bean) ( <i>Cicer arietinum</i> )	Seed-borne <i>Ascochyta</i> and <i>Phoma</i> spp. which cause Ascochyta Blight (foot rot, basal stem rot or black stem) <sup>2</sup> Seedling diseases caused by <i>Fusarium</i> spp.	0.237	2.04 <sup>4</sup> (65)
<b>LENTIL</b> Lentil ( <i>Lens esculenta</i> )	Seed-borne <i>Ascochyta</i> and <i>Phoma</i> spp. which cause Ascochyta Blight (foot rot, basal stem rot or black stem) <sup>2</sup> Seedling diseases caused by <i>Fusarium</i> spp.	0.014	1.05 <sup>4</sup> (34)
<b>PEAS<sup>3</sup></b> Pea ( <i>Pisum</i> spp.): includes dwarf pea, edible-pod pea, English pea, field pea, garden pea, green pea, snow pea and sugar snap pea Pigeon Pea ( <i>Cajanus cajan</i> )	Seed-borne <i>Ascochyta</i> and <i>Phoma</i> spp. which cause Ascochyta Blight (foot rot, basal stem rot or black stem) <sup>2</sup> Seedling diseases caused by <i>Fusarium</i> spp.	0.077	1.02 <sup>4</sup> (33)
1. Untreated foliage of legume vegetables from seeds treated with this product are covered by an EPA tolerance. 2. Will not control disease in aerial portions of the plant after emergence due to infection from such as soil or wind. For best results against Ascochyta blight, plant legume vegetable seeds treated with THIABENDAZOLE 4L ST fungicide as late in the spring as possible. 3. For Export Use on Peas: THIABENDAZOLE 4L ST may be mixed with other registered seed treatment products in accordance with the importing nation's phytosanitary requirements. Treated seeds must be labeled: "For Export Only – Not to be Sold or Offered for Sale in the United States." 4. Conversion from mg ai/seed are based on 1,250 bean seeds per pound, 1,250 chickpea seeds per pound, 10,600 lentil seeds per pound, and 1,930 pea seeds per pound. If the size of the seed to be treated differs greatly from these numbers use the mg ai/seed rate to calculate the fl. oz./100 lb of seed to be applied.			

Crop	Target Diseases	Use Rate Mg ai/seed	Use Rate fl. oz. product/100 lb seed	Remarks
<b>Soybeans</b> Not For Use in California	Pod and stem blight ( <i>Phomopsis</i> spp.)	0.0038–0.0076	0.08–0.16	For protection against other seed- and soil-borne diseases, it is recommended that a co-fungicide such as metalaxyl, be used at EPA-registered label rates and tank mixed in combination with THIABENDAZOLE 4L ST.
	<i>Fusarium</i> spp.	0.0076–0.0302	0.16–0.64	
	Nematodes (rootknot, reniform and soybean cyst)	0.0302	0.64	For early season suppression only.

#### RESTRICTIONS AND LIMITATIONS

- Maximum one application per year.
- This product must not be tank mixed with any pesticide unless physical compatibility and phytotoxicity tests have been completed and proved to be satisfactory.
- Regardless of type of application, do not apply more than 0.15 lb thiabendazole per acre (68.0 grams ai/A) per year.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store THIABENDAZOLE 4L ST in a cool, dry place away from food, drink, and animal feeding stuffs. Do not store below 32°F (0°C). Repeated product freezing and thawing should be avoided. Shake or stir product before use.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility in accordance with Federal, State or local procedures under the Resource Conservation and Recovery Act.

#### CONTAINER HANDLING:

**Non-refillable containers (1, 2.5, & 30 gallon):** Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

**(non-refillable <5 gallons):** Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. 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. Then offer for recycling, if available, 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.

**(non-refillable >5 gallons):** Triple rinse 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. Turn the container over onto its other 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. Then offer for recycling, if available, 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.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. 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.

**REFILLABLE CONTAINER (>250 gallon):** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times. Then offer for recycling, if available, 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.

**CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.**

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## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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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 ALBAUGH or Seller. To the extent permitted by applicable law. Buyer and User agree to hold ALBAUGH and Seller harmless for any claims relating to such factors.

ALBAUGH 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. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or ALBAUGH, and, (2) Buyer and User assume the risk of any such use. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, ALBAUGH MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

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