# **BIGHORN**<sup>™</sup>

GROUP 1 & 3 FUNGICIDES

### Liquid Flowable Fungicide

#### **ACTIVE INGREDIENT:**

Thiophanate-methyl (dimethyl [(1,2-phenylene)- bis(iminocarbonothioyl)]bis[ carbamate]) *37.59	%
Tebuconazole, alpha-[2-(4-chlorophenyl)ethyl]- alpha-(1, 1-dimethylethyl)-1H-1, 2,4-triazole-1-ethanol7.5%	%
OTHER INGREDIENTS:	%
TOTAL:100.09	6

\* Also known as dimethyl 4,4' -o-phenylenebis[3-thioallophanate] Contains 3.6 pounds thiophanate-methyl per gallon.

Contains 0.7 pounds tebuconazole per gallon.

# KEEP OUT OF REACH OF CHILDREN CAUTION

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.)

EPA REG. NO. 89167-26-91395



#### FIRST AID

#### 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.

#### If in eyes:

Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then
continue rinsing eye.

#### If inhaled:

- 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.

#### 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.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

Note to Physician: No specific antidote. Treat symptomatically. Symptoms of Poisoning: The compound does not cause any definite symptoms that would be diagnostic.

#### **EMERGENCY TELEPHONE NUMBERS:**

#### FOR MEDICAL EMERGENCIES, SPILLS OR TRANSPORTATION EMERGENCIES: (800) 424-9300

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed. 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.

#### 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 C on an EPA Chemical-resistance category selection chart. All mixers and loaders and applicators must wear:

- long-sleeved shirt and long pants.
- · shoes plus socks,
- · chemical-resistant gloves for all mixers and loaders and for applicators using hand held equipment,
- · chemical-resistant apron for mixers, loaders, and other handlers exposed to the concentrate

#### USER SAFETY REQUIRMENTS

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. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

#### 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 mammals, fish, and aquatic invertebrates.

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 neighboring areas. Do not apply where runoff is likely to occur. Do not contaminate water when disposing of equipment washwater or rinsate.

Ground Water Advisory: Tebuconazole is known to leach through soil under certain conditions as a result of product use. Use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

Surface Water Advisory: This product may contaminate water through drift of spray in wind. This product has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted within 48 hours.

#### ENGINEERING CONTROLS

When handlers use enclosed cabs in a manner that meets the requirements listed in the worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240 (d) (4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

#### DIRECTIONS FOR USE

#### SHAKE WELL BEFORE USING

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). The REI for each crop is listed in the directions for use associated with that crop.

Exemption: 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 over long-sleeved shirt and long parts, chemical-resistant gloves made from any waterproof material, chemical-resistant footwear plus socks, and chemical-resistant headoear for over head exposures.

#### INSTRUCTIONS AND INFORMATION

Apply BIGHORN with ground or aerial equipment using sufficient volume of spray to provide thorough coverage. Unless specified otherwise in the crop-specific directions, for aerial applications use a minimum of 5 gallons/acre and for ground applications use a minimum of 20 gallons/acre. Check equipment calibration frequently. Continuous agitation is required to keep the material in suspension.

Complete coverage and uniform application are essential for the most effective results, especially when lower spray volumes are applied. If necessary, increase the spray volume per acre for complete crop coverage. Higher spray volume will generally result in better coverage and disease control. See local State Extension Service recommendations for application schedules.

#### SPRAY EQUIPMENT

Equip sprayers with nozzles that provide accurate and uniform application. Calibrate sprayer before use. Check nozzle manufacturer's recommendations.

Use a pump with capacity to: (1) maintain at least 35-40 psi at nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension - this requires recirculation of 10% of tank volume per minute. Use a jet agitator or liquid sparge tube for agitation.

For more information on spray equipment and calibration, consult sprayer manufacturers and state recommendations. For specific local directions and spray schedules, consult the current state and local agricultural recommendations.

#### SPRAY DRIFT MANAGEMENT

Do not make applications when conditions favor drift beyond the target application area. When drift may be a problem, take measures to reduce drift, including:

- 1. Do not spray if wind speeds are or become excessive. Do not spray if wind speed is 15 mph or greater. If non-target crops are located downwind, use caution when spraying if wind is present.
- 2. Use caution when conditions are favorable for drift (high temperatures and or low relative humidity).
- 3. Do not apply when a temperature inversion exists. If inversion conditions are suspected, consult with local weather services before making an application.

#### MIXING AND COMPATIBILITY INSTRUCTIONS

Mixing: Thoroughly clean spray equipment before using this product. Fill spray tank half full and add listed amount of BIGHORN into the spray tank while filling with water to the desired level. Operate the agitator while mixing. Prepare no more spray mixture than is required for the immediate operation. If other materials are added to the spray tank, BIGHORN should be thoroughly dispersed prior to the addition of other materials. Begin application of the solution when the BIGHORN has completely dispersed in the mix water. Maintain agitation until all of the mixture has been applied. Do not let spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

Compatibility: To determine the compatibility of BIGHORN with other products, the following procedure should be followed: Pour the specified proportions of the products into a suitable container of water, mix thoroughly and allow to stand at least five minutes. If the combination remains mixed or can be re-mixed readily, the mixture is considered physically compatible.

THE CROP SAFETY OF ALL POTENTIAL TANK MIXES INCLUDING ADDITIVES AND OTHER PESTICIDES ON ALL CROPS HAS NOT BEEN TESTED. BEFORE APPLYING ANY TANK MIXTURE NOT SPECIFICALLY RECOMMENDED ON THIS LABEL, THE SAFETY TO THE TARGET CROP SHOULD BE CONFIRMED.

#### INTEGRATED PEST (DISEASE) MANAGEMENT

BIGHORN should be integrated into an overall disease and pest management strategy whenever the use of a fungicide is required. Cultural practices known to reduce disease development should be followed. Consult your local agricultural authorities for additional IPM strategies established for your area. BIGHORN may be used in State Agricultural Extension advisory (disease forecasting) programs which recommend application timing based on environmental factors favorable for disease development.

#### RESISTANCE MANAGEMENT

BIGHORN is a mixture of Group 1 (thiophanate-methyl) and Group 3 (tebuconazole) fungicides. Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly. Because resistance development cannot be predicted, use of this product should conform to resistance management strategies established for the crop and use area. Consult your local or State agricultural authorities for resistance management strategies that are complementary to those in this label. Resistance management strategies may include rotating and/or tank mixing with products having different modes of action or limiting the total number of applications per season.

CROP	DISEASES	RATE FL. OZ BIGHORN / ACRE	REMARKS
Soybeans  Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.	Aerial Blight (suppression) (Rhizoctonia solani) Asian Soybean Rust (Phakopsora pachyrhizi) Anthracnose (Colletotrichum spp.) Brown Spot (Septoria glycines) Frogeye Leaf Spot (Cercospora sojina) Pod & Stem Blight (Diaporthe phaseolorum) Powdery Mildew (Microsphaera diffusa) Purple Seed Stain (Cercospora kikuchii) White Mold (Sclerotinia sclerotiorum)	20	Do not exceed a total application of 1.4 lbs a.i. thiophanate-methyl and 0.34 lb a.i. tebuconazole per acre per year from all applications of all products containing these active ingredients.  Pre-harvest interval (PHI): 21 days  Do not graze or feed treated vines or hay to livestock.  Soybean fields should be observed closely beginning at the early reproductive growth stages, scouting for early disease symptoms especially when conditions favor disease development.  Apply BIGHORN either as a preventative application or at first visible symptoms of disease as a broadcast foliar application for control of leaf and pod diseases.  — For control of White Mold begin applications at R1-R2.  — For control of Asian Soybean Rust, begin with BIGHORN applications at R3 (beginning pod growth), or Pre / Early post ASR infection.  Repeat applications on a 14-day interval if environmental conditions favor disease development.  Applications later than 14 days after pods average 1/4 inch in length are prohibited.

CROP	DISEASES	RATE FL. OZ BIGHORN / ACRE	REMARKS
Beans, (Fresh and dry except succulent shelled)  Do not enter or allow worker	Gray Mold (Botrytis spp.) Anthracnose (Colletotrichum spp.) Rust	25-30	Beans, fresh: Do not exceed a total application of 2.8 lbs. a.i. thiophanate-methyl and 0.68 lb. a.i. tebuconazole per acre per year from all applications of all products containing these active ingredients.
entry into treated areas during the restricted-entry- interval (REI) of 24 hours for fresh beans and 3 days for	(Uromyces appendiculatus)		Beans, fresh: Pre-harvest interval (PHI): 14 days In California the Pre-harvest interval (PHI) for lima beans is 28 days.
dry beans.			<b>Beans, dry:</b> Do not exceed a total application of 2.8 lbs. a.i. thiophanate-methyl and 0.34 lb. a.i. tebuconazole per acre per year from all applications of all products containing these active ingredients.
			Beans dry: Pre-harvest interval (PHI): 28 days  Do not graze or feed treated plants or hay to livestock.
			Bean fields should be observed closely for early disease symptoms especially when conditions favor disease development. Apply BIGHORN as a preventative spray for best results. Make a second application 14 days later if needed.
	White Mold (Sclerotinia sclerotiorum)	30	Bean fields should be observed closely for early disease symptoms especially when conditions favor disease development. Apply BIGHORN as a preventative spray for best results
			Apply when 10% to 30% of plants have at least one open bloom and prior to the development of disease for best results. Follow with an application of another white mold fungicide (excluding products containing a triazole Group 3 Fungicide active ingredient) 4 to 7 days later. If a third application is required, BIGHORN can be applied again 14 days after the first BIGHORN application.

CROP	DISEASES	RATE FL. OZ BIGHORN / ACRE	REMARKS
Pecan  Do not enter or allow worker entry into treated areas during the restricted-entry-interval (REI) of 3 days	Scab (Cladosporium caryigenum) Brown leaf spot (Sirosporium diffusum, Cercospora fusca) Downy spot (Mycosphaeralla caryigena) Powdery mildew (Microsphaera penicillata) Stem end blight (Botryosphaeria) Liver spot (Gnomonia caryae) Vein spot (Gnomonia nerviseda) Zonate leaf spot (Grovesinia pyramidalis)	25	Do not exceed a total application of 2.1 lbs. a.i. thiphanate-methyl and 0.9 lb a.i. tebuconazole per acre per year from all applications of all products containing these active ingredients.  Pre-Harvest Interval (PHI): Do not apply after shuck split.  Do not graze or feed treated plants or hay to livestock.  Pecan orchards should be observed closely beginning at early stages, scouting for early disease symptoms especially when conditions favor disease development.  Apply BIGHORN either as a preventative application or at first visible symptoms of disease beginning at early bud break (young leaves unfolding), and continue applications at a 21-day-interval through the pollination period. Apply BIGHORN in a spray volume of 15 or more gallons per acre by air or 50 or more gallons per acre by ground.  Alternate applications of BIGHORN with another effective fungicide. BIGHORN can be tank mixed with the specified rate of Super Tin® in cover sprays.  Follow label directions for use of Super Tin. Do not add a surfactant to the spray solution when tank-mixing BIGHORN with Super Tin.
Wheat, Fall-Seeded Only For this use in Idaho, Oregon and Washington ONLY Do not enter or allow worker entry into treated areas during the restricted- entry-interval (REI) of 24 hours.	Foot rot, Straw breaker, Eye Spot (Pseudocercosporella) Rusts: leaf, stem and stripe (Puccinia spp.) Septoria Leaf Spot and Glume Blotch (Septoria Complex: Septoria tritici and Stagonospora nodorum) Powdery Mildew (Erysiphe graminis, Blumeria graminis) Tan Spot (Pyrenophora tritici0repentis)	20	Do not exceed a total application of 0.7 lb. a.i. thiophanate-methyl and 0.11 lb. a.i. tebuconazole per acre per year from all applications of all products containing these active ingredients.  Do not cut for hay within 90 days of application.  Do not allow livestock to graze in treated areas before harvest.  Wheat fields should be observed closely for early disease symptoms, particularly when susceptible varieties are planted and/or under prolonged conditions favorable for disease development.  Apply BIGHORN in a single application by air or ground after tillering but before stem elongation.

	Application Timing of BIGHORN for Optimum Control of Rhizoctonia Limb and Pod Rot on Peanuts					
Spray Program		BIGHORN Application No.	Chlorothalonil Application No.			
	7 applications	3, 4, 5 and 6	1, 2 and 7			

## OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES, RESERVOIRS, RIVERS, PERMANENT STREAMS, MARSHES OR NATURAL PONDS, AND ESTUARIES.

Apply only during alternate years in fields adjacent to aquatic areas listed above.

Do not apply by ground or air within 100 feet of aquatic areas listed above.

Do not cultivate within 10 feet of an aquatic area to allow growth of a vegetative filter strip.

Spray Drift Management: For aerial applications, the spray boom should be mounted on the aircraft so as to

minimize drift caused by wing tip vortices. The minimum practical boom length should be used, and must not exceed 75% of the wingspan or rotor diameter.

Use the largest droplet size consistent with pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure. Apply in a minimum of 5 gallons of spray solution per acre by aircraft spray equipment. Spray should be released at the lowest possible height consistent with good pest control and flight safety.

Applications more than 10 feet above the crop canopy should be avoided.

Make aerial or ground applications when wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.

Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area. Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature. Do not make aerial or ground applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

#### **ROTATIONAL CROPS**

Treated areas may be replanted with any crop specified on this label as soon as practical after last application. Any crop not specified on this label may be planted into treated areas 120 days after last application.

#### STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in the original container in a dry area. Do not store in a manner where cross-contamination with other pesticides, fertilizers, food or feed could occur. If spilled during storage or handling, absorb with sand or other inert material and dispose of absorbent in accordance with the Pesticide

Disposal Instructions listed below.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. 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 quidance.

#### CONTAINER HANDLING:

Nonrefillable container. Do not reuse or refill this container.

Clean container promptly after emptying. 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 ¼ 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.

#### 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 or 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. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of ALTITUDE CROP INNOVATIONS, LLC 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 ALTITUDE CROP INNOVATIONS, LLC and Seller harmless for any claims relating to such factors.

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