

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

ALTITUDE CROP INNOVATIONS LLC  
4850 Hahns Peak Drive, Suite 200  
Loveland, CO 80538

**PRODUCT NAME:** BIGHORN

**EPA REG. NO.:** 89167-26-91395

**CHEMICAL NAME:** Tebuconazole, alpha-[2-(4-chlorophenyl)ethyl]-alpha-(1,1-dimethylethyl)-1 H-1,2,4-triazole-1-ethanol

**CHEMICAL FAMILY:** Fungicide

**Hotline Numbers: For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night**

**Within USA and Canada: 1-800-424-9300**

**Outside USA and Canada: +1 703-527-3887 (collect calls accepted)**

**2. HAZARDS IDENTIFICATION SUMMARY**

**KEEP OUT OF REACH OF CHILDREN – 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.

**3. COMPOSITION, INFORMATION ON INGREDIENTS**

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Thiophanate-methyl	37.5	23564-05-8	Not listed
Tebuconazole	7.5	107534-96-3	Not listed
Other Ingredients	55.0		

**4. FIRST AID MEASURES**

**If swallowed:** Call a poison control center or doctor immediately for treat 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. Call a poison control center or doctor for treatment advice.

**If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

**If on skin or clothing:** 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.

**Note To Physician:** No specific antidote. Treat symptomatically. This compound does not cause any definite symptoms that would be diagnostic.

**5. FIRE FIGHTING MEASURES**

**FLASH POINT** (°F/Test Method): >200°F

**FLAMMABLE LIMITS** (LFL & UFL): Not established

**EXTINGUISHING MEDIA:** Use foam, dry chemical, carbon dioxide, water spray or fog.

**HAZARDOUS COMBUSTION PRODUCTS:** Toxic fumes may be emitted in a fire situation.

**SPECIAL FIRE FIGHTING PROCEDURES:** Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Fire exposed containers can build up pressure and should be kept cool with water spray if possible. Explosive vapor could form from ruptured containers. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Containers may expand and burst at elevated temperatures. Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion.

**FIRE FIGHTING EQUIPMENT:** Self-contained breathing apparatus with full facepiece. Full fire fighting turn-out gear (Bunker gear).

**HAZARDOUS COMBUSTION PRODUCTS:** may produce oxides of carbon or nitrogen.

**6. ACCIDENTAL RELEASE MEASURES**

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** In case of leak or spill, contain material and dispose as waste. Do not contaminate any body of water. Pick up spilled liquid with absorbent material and sweep up for disposal. Place it and damaged unusable containers in a landfill appropriate for non hazardous chemical waste. Check local, state and federal regulations for proper disposal. **NOTE:** Prevent spilled material from flowing onto adjacent land, or into municipal sewers and open bodies of water. Always wear proper protective equipment when working with the product.

**7. HANDLING AND STORAGE**

**HANDLING:** Wash hands after handling, and 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.

**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.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**ENGINEERING CONTROLS:** When handlers use closed systems, enclosed cabs, or aircraft 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.

**RESPIRATORY PROTECTION:** Not normally required. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

**EYE PROTECTION:** Wear chemical goggles or shielded safety glasses when handling and mixing product.

**SKIN PROTECTION:** Wear protective clothing: long-sleeved shirts and pants, shoes plus socks and chemical-resistant gloves. Always refer to the label of the pesticide(s) in the tank mix and follow the most restrictive requirements.

**Personal Protective Equipment (PPE):** Wear long-sleeved shirt and long pants, chemical-resistant gloves, such as barrier laminate, or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride or viton, and shoes plus socks. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**APPEARANCE AND ODOR:** Opaque Tan Liquid , faint sulfur

**SPECIFIC GRAVITY (Water=1):** 1.13 – 1.17 g/ml

**VAPOR PRESSURE:** Not established

**VAPOR DENSITY:** Not established

**PERCENT VOLATILE (by volume):** Not established

**Note:** These physical data are typical values based on material tested but may vary from sample to sample.

Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

**SOLUBILITY:** Soluble                      **pH:** ~8.0 (1% Sol)

**BULK DENSITY:** 9.42 – 9.75 lbs/gal.

**BOILING POINT:** Not established

**VISCOSITY:** Not established

**EVAPORATION RATE:** Not established

**10. STABILITY AND REACTIVITY**

**STABILITY:** Stable under proper storage conditions.

**CONDITIONS TO AVOID:** Direct sunlight and extreme temperatures, both high and low.

**INCOMPATIBILITY:** None Known

**HAZARDOUS POLYMERIZATION:** Will not occur.

**HAZARDOUS DECOMPOSITION PRODUCTS:** May emit oxides of carbon and nitrogen.

**11. TOXICOLOGICAL INFORMATION**

Based on a similar formulation

**Acute Oral LD<sub>50</sub>:** ~ 1000 mg/kg

**Eye Irritation:** Causes mild irritation

**Inhalation LC<sub>50</sub>:** >2.00 mg/L(Female)

**Carcinogenic Potential:** None listed in OSHA, NTP, IARC, or ACGIH

**Acute Dermal LD<sub>50</sub>:** >5,000 mg/kg (Rat)

**Skin Irritation:** May cause slight irritation

**Skin sensitization:** Not a contact sensitizer

**12. ECOLOGICAL INFORMATION**

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.

**13. DISPOSAL CONSIDERATIONS**

Do not reuse product containers. Triple rinse (or equivalent), then offer for recycling at an ACRC site (go to <http://www.acrecycle.org/> for locations) or by reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by local, state and federal regulations.

**14. TRANSPORT INFORMATION**

**DOT Shipping Description:** Environmentally hazardous substance, liquid, N.O.S. (Thiophanate Methyl) RQ (Thiophanate Methyl) 10 lbs.

**DOT HAZARD CLASS:** 9

**UN NUMBER:** 3082

**DOT PACKING GROUP:** III

**DOT PRIMARY/SECONDARY LABEL:** 9 / None

**DOT PRIMARY/SECONDARY PLACARD:** 9 / None

**15. REGULATORY INFORMATION**

**NFPA RATINGS:** Least = 0      Slight = 1      Moderate = 2      High = 3      Severe = 4  
**Ratings for this product:** Health – 1      Flammability – 1      Instability – 1      Special Hazards – None Specified

**SARA Title III Hazard Category:** Immediate   Y        Fire   N        Sudden Release of Pressure   N    
 Delayed   Y        Reactive   N  

**Reportable Quantity (RQ) under U.S. CERCLA:** None

**SARA, Title III, Section 313:** None

**CA Proposition 65:** Not Listed

**16. OTHER**

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