



**Hangzhou Tianlong Biotechnology Co., Ltd.**

Add: Room 1906, Fengqi Times Tower, No.338, Fengqi East Road, Hangzhou, Zhejiang, China

## MATERIAL SAFETY DATA SHEET

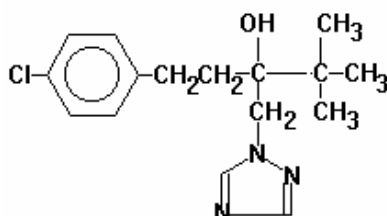
### 1. Chemical Product and company Identification

Product Name: Tebuconazole

Molecular Formula: C<sub>16</sub>H<sub>22</sub>ClN<sub>3</sub>O

Molecular Weight: 307.81

Structural Formula:



Chemical Name:

(RS)-1-(4-chlorophenyl)-4,4-dimethyl-3-(1H-1,2,4-triazole-1-yl)butan-3-ol

CAS No.: 107534-96-3

Supplier: HANZHOU TIANLONG BIOTECHNOLOGY CO., LTD

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### 2. Composition / Information on Ingredients

Composition	CAS No.	Content %
Tebuconazole	107534-96-3	97.0
Other ingredients		3.0

### 3. Hazards Summarizing

Emergency overview: Caution! Keep out of reach of children. Harmful if swallowed. Do not breathe dust. Avoid contact with skin and eyes.

Routes of Entry: Inhalation, skin, eyes, ingestion

Environmental hazards: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Chemical Interactions: No known interactions

Medical Conditions Aggravated: Pre-existing liver diseases, Pre-existing kidney disease

### 4. First Aid Measures

If Inhaled: Remove individual to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

If on Skin: Immediately flush skin with plenty of water for 15 minutes. If clothing comes in contact with the product, the clothing should be removed immediately and laundered before re-use. Call a physician.

If In Eyes: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids apart. Call a physician immediately.

If Swallowed: Call a physician immediately. Do not induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person.

## **5. Fire-Fighting Measures**

Fire/Explosion Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Empty containers that retain product residue (liquid, solid/sludge, or vapor) can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose container to heat, flame, sparks, static electricity, or other sources of ignition. Any of these actions can potentially cause an explosion that may lead to injury or death.

Extinguishing Media: Not Applicable. - Choose extinguishing media suitable for surrounding materials.

Fire Fighting Instructions: Response to this material requires the use of a full encapsulated suit and self-contained breathing apparatus. Use water to cool containers.

## **6. Accidental Release Measures**

Personal Protection for Emergency Situations: Response to this material requires the use of personal protective equipment to prevent contact with this material. Those items include but are not limited to boots, impervious gloves, hard hat, chemical splash-proof goggles, impervious clothing, and appropriate approved respiratory protection.

## **7. Handling And Storage**

Handling: Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Avoid breathing (dust, vapor, mist, gas). Keep container closed when not in use. Use only with adequate ventilation.

Storage: Store in a cool dry ventilated location, away from oxidizers, heat, flame, or other incompatible conditions. Keep container(s) closed. Keep from freezing. Product becomes very viscous.

## **8. Exposure Controls/Personal Protection**

Skin: A full impervious suit is recommended if exposure is possible to a large portion of the body. Wear impervious gloves, boots and apron. An eye wash

and safety shower should be provided in the immediate work area.

Eyes: Use chemical goggles and a faceshield. Emergency eyewash should be provided in the immediate work area.

Protective Clothing Type: Neoprene, Butyl rubber, Nitrile

Other PPE: An eye wash and safety shower should be provided in the immediate work area.

## 9. Physical and Chemical Properties

Appearance: Colorless crystals

PH: Not available

Solubility in Water: 36mg/l

Melting point : 105°C

Vapor pressure : 0.013mPa@25°C

Boiling Point: Decomposes before boiling

Degradation point: 350°C

## 10. Stability and Reactivity

Stability and Reactivity Summary: Stable under normal conditions. Not sensitive to mechanical shock. Not sensitive to static discharge.

Reactive Properties: Corrosive

Hazardous Polymerization: Will not occur

Conditions to Avoid: High temperatures

Chemical Incompatibility: strong oxidizing agents, strong acids, hydrazine, cellulose nitrates, sodium hypobromite, nitromethane, aluminum, zinc, acetylene

## 11. Toxicological Information

Acute oral LD<sub>50</sub>: male rat 4000mg/kg

female rat 1700mg/kg

mouse 3000mg/kg

Acute dermal LD<sub>50</sub>: rat >5000mg/kg

Acute inhalation LC<sub>50</sub>(4h) : rat 0.37mg/L(air)

rat >5.1mg/L(dust)

Skin irritation: non-irritant (rabbit)

Eye irritation: severely irritant (rabbit)

Chronic toxicity/Carcinogenicity: Prolonged overexposure to Tebuconazole may cause effects to liver, spleen, adrenals and/or eyes. Tebuconazole was not carcinogenic in chronic feeding study in rats. In a mice study, there was an increased incidence of liver tumors at the highest dose tested.

Reproductive to toxicity: Animal studies on Tebuconazole resulted in decreased pup body weights and smaller litters at doses that were also toxic to mother animals.

Development toxicity: In animals studies with Tebuconazole, development effects were observed at doses that were also toxic to the maternal animal.

Genotoxicity: Neither in vitro nor in vivo tests on Tebuconazole demonstrated mutagenic effects.

## 12. Ecological Information

Birds:

Acute oral LD50 : male Japen quail 4438mg/kg  
female Japen quail 2912mg/kg  
bobwhite 1988mg/kg

Feeding LC50(5days) : mallard >4816mg/kg  
bobwhite >5000mg/kg

Toxicity to fishes :

LC50(96h) : rainbow trout 4.4mg/L

LC50(96h) : bluegill 5.7mg/L

Daphnia LC50(48h) : 4.2mg/L

Bee LD50(48h) : 175.8µg/bee(oral)

0.6µg/bee(contact)

### **13. Disposal Considerations**

Waste Disposal Summary: Disposal must be in accordance with applicable local regulations. Remove nonusable solid materials and/or contaminated soil for disposal in an approved and permitted landfill. Do not flush into surface water or sanitary sewer systems.

### **14. Transport Information**

Class: 9

UN No.: 3077

Packing group III

### **15. Regulatory Information**

Safety Phrases: Keep out of reach of children

Keep away from food, drink and animal feeding stuff

Do not breathe spray

When using do not eat, drink or smoke

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

In case of accident or if you feel unwell, seek medical advice immediately (Show the label where possible)

Use appropriate containment to avoid environmental contamination

### **16. Other Information**

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.