



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

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

## MATERIAL SAFETY DATA SHEET

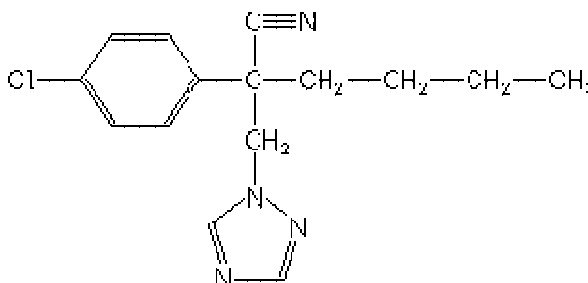
### 1. Chemical Product and company Identification

Product Name: Myclobutanil

Molecular Formula: C<sub>15</sub>H<sub>17</sub>CIN<sub>4</sub>

Molecular Weight: 288.77

Structural Formula:



Chemical Name: 2-(4-chlorophenyl)-2-(1,2,4-triazol-1-ylmethyl)hexanenitrile

CAS No.: 88671-89-0

Supplier: HANZHOU TIANLONG BIOTECHNOLOGY CO., LTD

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### 2. Composition / Information on Ingredients

Composition	CAS No.	Content %
Myclobutanil	88671-89-0	95.0
Other ingredients		5.0

### 3. Hazards Summarizing

Primary Routes Of Exposure: Eye contact, skin contact, inhalation

Inhalation: Repeated or prolonged inhalation of dust is possibly harmful.

Eye Contact: Direct contact with material can cause the following substantial irritation:

Skin Contact: Prolonged or repeated skin contact can cause the following: slight skin irritation

Ingestion: Material is possibly harmful if swallowed.

Delayed Effects: Repeated overexposure to the active ingredient in this

material can cause the following: adverse reproductive effects and embryofetotoxic effects.

#### **4. First Aid Measures**

Inhalation: Move subject to fresh air.

Eye Contact: Flush eyes with a large amount of water for at least 15 minutes. See a physician.

Skin Contact: Wash affected skin areas thoroughly with soap and water. Consult a physician if irritation persists.

Ingestion: If swallowed, give 2 glasses of water to drink. Consult a physician. Never give anything by mouth to an unconscious person.

Note to physician: If swallowed, careful evacuation of the stomach is advisable.

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

Flash Point: Not Applicable

Extinguishing Agents: Use the following extinguishing media when fighting fires involving this material: carbon dioxide, dry chemical, or water spray.

Personal Protective Equipment: Wear self-contained breathing apparatus and full protective gear.

#### **6. Accidental Release Measures**

Appropriate protective equipment must be worn when handling a spill of this material. See SECTION 8, Exposure Controls/Personal Protection, for recommendations. If exposed to material during clean-up operations, see SECTION 4, First Aid Measures, for actions to follow. Remove all contaminated clothing promptly. Wash all exposed skin areas with soap and water immediately after exposure. Thoroughly launder clothing before reuse. Do not take clothing home to be laundered.

#### **7. Handling and Storage**

Storage Conditions: Do not store this material near food, feed or drinking water. Store in a well-ventilated area. Store in a dry area. Store out of direct sunlight in a cool place. The minimum recommended storage temperature for this material is 1°C/34°F. The maximum recommended storage temperature for this material is 49°C/120°F.

Handling Procedures: Do not handle material near food, feed or drinking water. Avoid high concentrations of dust in air and accumulation of dust on equipment. An airborne dust of this material can create a dust explosion. When handling and processing this material local exhaust ventilation may be required to control dust and reduce exposure to vapors. To prevent dust explosions employ bonding and grounding for operations capable of generating static electricity. Protect all equipment from explosions by following the guidelines.

## 8. Exposure Controls/Personal Protection

Eye Protection: Use chemical splash goggles. Eye protection worn must be compatible with respiratory protection system employed.

Hand Protection: Chemical-resistant gloves should be worn whenever this material is handled. The glove(s) listed below may provide protection against permeation: Polyvinyl chloride-coated glove or other chemical-resistant rubber-coated glove. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water.

## 9. Physical and Chemical Properties

Appearance : Light yellow powder

PH : 7.5 to 8.5 Aqueous suspension

Specific Gravity (WATER = 1) :0.3 to 0.35 g./cc. Bulk Density

Vapor Density (AIR = 1): Not Applicable

Melting Point: 63-68°C

Boiling Point: 202-208@133Pa

Vapor pressure : 0.213mPa@25°C

Partition coefficient : KowlogP=2.94@25°C , pH=7-8

Solubility In water: 142mg/L@25°C

Evaporation Rate (BAc = 1): Not Applicable

## 10. Stability and Reactivity

Instability: This material is considered stable.

Hazardous Polymerization: Product will not undergo polymerization.

Incompatibility: Avoid contact with strong oxidizing agents.

## 11. Toxicological Information

Acute studies

Oral LD50 – rat: 2290 mg/kg (female); 1600 mg/kg (male)

Oral LD50 – mouse: 1910 mg/kg (male); 1840 mg/kg (female)

Dermal LD50 – rabbit: >5000 mg/kg

Inhalation LC50 – rat: >5.1 mg/L for 4 hr.

Skin Irritation – rabbit: no irritation.

Eye irritation – rabbit: severe irritation (FIFRA Classification)  
moderate irritation (EEC Classification)

Sensitization – guinea pig: Allergic response observed (FIFRA Classification)

Not a sensitizer (EEC Classification)

The following data is based on the active ingredient.

## Reproductive/Developmental Effects

No evidence of teratogenicity was observed in studies with rats and rabbits. Embryotoxicity was observed at 94 mg/kg/day and above in the rat developmental toxicity study; maternal toxicity was observed at 313 mg/kg/day and above. The overall NOEL was 31 mg/kg/day in rats.

Embryotoxicity was observed at 200 mg/kg/day in the rabbit developmental toxicity study; maternal toxicity was observed at 60 mg/kg/day and above. The overall NOEL was 20 mg/kg/day in rabbits.

Systemic toxicity was observed at 200 and 1000 ppm in the rat two-generation reproduction study; minimal reproductive effects and testicular atrophy were observed at 1000 ppm (50 mg/kg/day). The NOEL for reproductive effects was 200 ppm (10 mg/kg/day) in rats.

## 12. Ecological Information

Eco-Acute Toxicity (Technical Grade).

Bluegill sunfish (*Lepomis macrochirus*), 96 Hour LC50: 2.2 mg/l

Rainbow trout (*Salmo gairdner*), 96 Hour LC50: 3.9 mg/l

Daphnia magna, 48 Hour LC50: 10.2 mg/l

Eastern oyster, 96 Hour EC50: 0.72 mg/l

Mysid shrimp (*Mysidopsis bahia*), 96 Hour LC50: 240 pg/l

Algae (*Selenastrum capricornutum*), 120 Hour EC50: 0.91 mg/l

Algae (*Scenedesmus subspicatus*), 96 Hour EC50: 2.6 mg/l

Bobwhite quail, Dietary LC50: >5000 ppm

Bobwhite quail, LD50: 510 mg/kg

Mallard duck, Dietary LC50: >5000 ppm

Honeybee, LD50: >362 pg/bee

## 13. Disposal Considerations

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, provincial, and federal health and environmental guidelines.

## 14. Transport Information

Class: 9

UN No: UN 3077

Packaging 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.