



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

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

## MATERIAL SAFETY DATA SHEET

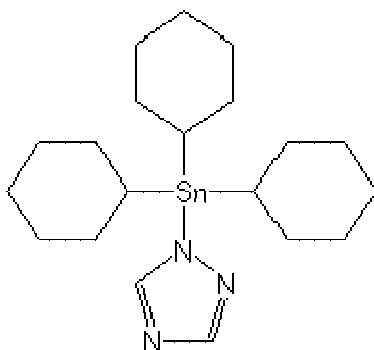
### 1. Chemical Product and company Identification

Product Name: Azocyclotin

Molecular Formula:  $C_{20}H_{35}N_3Sn$

Molecular Weight: 436.222

Structural Formula:



Chemical Name: 1-(tricyclohexylstannyl)-1H-1, 2, 4-triazole

CAS No.: 41083-11-8

Supplier: HANZHOU TIANLONG BIOTECHNOLOGY CO., LTD

Address: Room 1906, Fengqi Times Tower, No.338 Fengqi East Road, Hangzhou, China, 310020

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### 2. Composition / Information on Ingredients

Composition	CAS No.	Content %
Azocyclotin	41083-11-8	95.0
Other ingredients		5.0

### 3. Hazards Summarizing

Routes of exposure:

Skin, inhalation, oral

Very toxic to aquatic organisms

Harmful to terrestrial vertebrates

Toxic - May be fatal if swallowed, inhaled or absorbed through the skin.

Harmful - presumed to/may cause organ damage from repeated oral exposure at high doses.

Danger - this product is corrosive and may cause eye damage

### 4. First Aid Measures

Effects and symptoms: May be fatal if swallowed, inhaled or absorbed

through the skin. Risk of serious damage to eyes, irritate to respiratory system, very toxic by inhalation. Remove victims from the danger zone. If there is a risk of unconsciousness, position and transport in stable lateral position remove soiled or soaked clothing immediately.

Eyes: If this product comes into contact with eyes, hold open and wash with running water for at least 15 minutes. Ensure irrigation under eyelids by occasionally lifting them. Do not try to remove contact lenses unless trained. Seek medical attention.

Skin: Wash skin immediately with copious amounts of water and soap. Then seek medical advice

Inhalation: Bring accident victims out into the fresh air. Call emergency doctor immediately.

Ingestion: Call emergency doctor immediately.

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

Extinguishing media:

Sprayed water jet, foam, extinguishing

Hazardous thermal (de)composition products:

In the event of fire, the formation of hydrogen cyanide, carbon monoxide and nitrogen oxides must be anticipated.

Protection of fire-fighters:

Remain upwind. Use water spray to cool containers exposed to fire. Wear full protective clothing and self contained breathing apparatus. Do not breathe smoke or gases.

## **6. Accidental Release Measures**

Personal cautions: safety glasses or goggles, rubber gloves, shoes plus socks, long-sleeved shirt, and long pants and hats.

Environmental precautions: Do not empty into drains or waters. Absorb spilled product with dust-binding material or suitable vacuum-cleaner. Avoid formation of dust. Fill materials taken up into closable container. To clean the floor and all objects contaminated by this material, use damp cloth. Also place used cleaning materials into closable receptacles.

Methods for cleaning up: In cases where large amounts of product have become unusable, it should be established whether material utilisation is possible, (if necessary consult the manufacturing supplier).

Small amounts of the product and uncleaned empty packaging should be packed, sealed, labelled. Contact local government officials prior to disposal so they may direct you to the most suitable waste disposal plant in accordance with local statutory requirements.

## **7. Handling and Storage**

Handling: When mixing or applying, avoid contact with skin and eyes. Wear protective clothing, gloves and goggles. Do not eat or drink while using. Wash hands and face before meals and after work. Wash protective clothing after work.

Storage: Store in original container tightly closed in a locked, dry, well

ventilated place away from food and feedstuffs. Keep out of reach of children or animals.

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

### Engineering measures

Exposure control measures: Ensure adequate ventilation when handling in an enclosed space.

### Personal Protective Equipment

Detail specifications for equipment:

Respiratory system: Full mask with filter

Skin and body: Wear long sleeved shirt, water proof boots and trousers worn outside of boots.

Hands: Protective gloves for chemicals.

Eyes: Goggles.

General hygiene: Wash hands and exposed skin before meals and after work. Do not eat drink or smoke when handling.

## **9. Physical and Chemical Properties**

Form: powder

Color: white

Odor: Slightly characteristic odor

Melting point: 210°C.

Specific gravity: approx. 370 ml/100g

Stability: Barely soluble in dichloromethane, 2-propanol, and toluene.  
Nearly insoluble in n-hexane.

Vapor Pressure: 0.06 at 25°C mPa

#### **10. Stability and Reactivity**

Stability: Stable under normal handling and storage conditions.

Incompatibilities: Avoid mixed with nitric, sulfuric acid, strong oxidizing agent and reducing agent

Hazard Decomposition: Thermal decomposition products contain oxides of carbon, oxides of nitrogen.

Hazard Polymerization: Will not occur.

#### **11. Toxicological Information**

Acute toxicity – Oral: Acute Toxicity: LD50 oral, rat (female): 611 mg/kg

LD50 oral, rat (male): 631 mg/kg

Acute toxicity - Dermal: LD50 dermal, rat: >1000 mg/kg

Azocyclotin Risk of cutaneous absorption

Acute toxicity – Inhalation: LC50 inhalation, rat: approx. 0.05mg/l, dustable powder 4 exposures\*

\*The relatively high acute toxicity of the dust when inhaled arises from local effects in the respiratory tract caused by a strong primary irritant effect on mucous membranes.

Skin irritation: Irritation of the skin/rabbit: nonirritant

Eye irritation: Irritant to the mucous membranes/rabbit: severely irritant, risk of serious damage to eyes.

Sensitization: Not a sensitizer.

Chronic toxicity

Carcinogenicity: Not considered to be carcinogenic

Mutagenicity: Not considered to be mutagenic

Reproduction toxicity: Not considered to be a reproductive toxin.

#### **12. Ecological Information**

Toxicity for Fish:

LC50: 0.005-0.01 mg/l (96h); Golden orfe (*Leuciscus melanotus*)

LC50: 0.01-0.05 mg/l (96h); *Oncorhynchus mykiss*

Toxicity for Daphnia:

(Active ingredient) EC50: 0.04 mg/l (48h); water flea (*Daphnia magna*)

Toxicity for Algae:

IC50: > 7.7 mg/l (72h); green algae (active ingredient) (*Scenedesmus subspicatus*)

Toxicity for Bees:

Not toxic

#### **13. Disposal Considerations**

Methods of disposal:

After use: Triple rinse empty container with water and empty contents into spray tank. Destroy the empty container by puncturing and crushing. Dispose of destroyed container by taking to an approved council disposal site or alternatively bury under at least 50cm of soil in a location away from houses, crops, water supply, and ground water.

#### **14. Transport Information**

Class: 6.1

UN No: UN 2786

Packaging Group I

Other Information: Highly toxic. Irritate to skin and mucous membranes. Seriously damages to eyes. Keep dry. Keep separated from foodstuffs.

#### **15. Regulatory Information**

Safety Phrases: Keep out of reach of children

Keep away from food, drink and animal feeding stuff

Do not breathe dust.

Avoid contact with skin and eyes

Wear suitable protective clothing and gloves.

This material and its container must be disposed of as hazardous waste

#### **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.