



Hangzhou Tianlong Biotechnology Co., Ltd.

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

MATERIAL SAFETY DATA SHEET

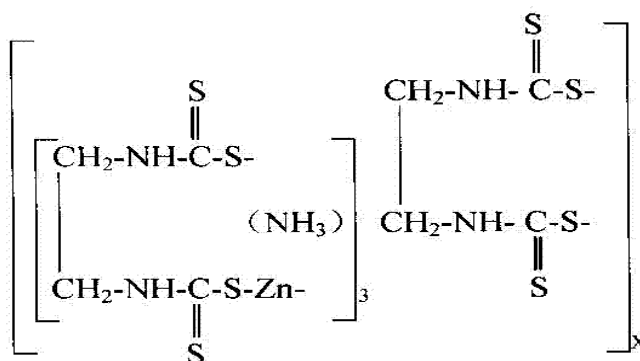
1. Chemical Product and company Identification

Product Name: Metiram

Molecular Formula: $C_{12}H_{12}N_6S_{16}Zn$

Molecular Weight: 818.7

Structural Formula:



Chemical Name: zinc ammoniate ethylenebis(dithiocarbamate)-poly(ethylenethiuram disulfide)

CAS No.: 9006-42-2

Supplier: HANZHOU TIANLONG BIOTECHNOLOGY CO., LTD

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2. Composition / Information on Ingredients

Composition	CAS No.	Content %
Metiram	9006-42-2	85.0
Other ingredients		15.

3. Hazards Summarizing

Harmful if swallowed, inhaled or absorbed through the skin. Avoid breathing dust or spray mist. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Causes moderate eye irritation.

4. First Aid Measures

Inhalation: If affected, remove from contaminated area to fresh air. Seek medical advice.

Skin contact: wash affected skin areas with soap and water. Consult a physician if irritation persists. Remove and wash contaminated clothing

thoroughly before reuse.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Seek medical attention.

Ingestion: If swallowed, rinse mouth with water. Give large quantities of water or if available, milk, egg white or gelatin. Do not induce vomiting unless told. Keep patient at rest and do not give anything by mouth to unconscious persons. Seek medical attention.

5. Fire-Fighting Measures

Extinguishing media: Dry chemical, foam, CO₂, water spray or fog.

Hazardous combustion products: Smoke from fire may contain hazardous components.

Special fire fighting procedures: Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear. Fight fire from upwind and keep all non-essential personnel out of area of intense smoke. Equipment should be thoroughly decontaminated after use.

Unusual fire and explosion hazards: If water is used to fight fire or cool containers, contain run-off by diking to prevent contamination of water suppliers.

6. Accidental Release Measures

Personal cautions: Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Steps to be taken if material is released or spilled: Avoid breathing dusts. Contain large and small spills. Sweep up spills and transfer to chemical containers for disposal or rework. Keep dusting to a minimum. If spill includes liquid, contain with diking and transfer the material to appropriate containers for disposal or reclamation. Absorb remaining material or small spills with an inert material then place in chemical waste containers. Flush residual spill area with water. Check local, state and federal regulations for proper disposal.

Caution: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

7. Handling and Storage

Handling: Wash hands before eating, drinking, chewing gum, tobacco usage, cosmetic application, or using the toilet. Remove all clothing if pesticide gets inside then wash thoroughly and change into 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: Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excessive heat. Carefully open containers. After partial use, fold and roll back bags, clamp and close tightly. Do not put concentrate into food or drink containers. Do not contaminate water, food or feed by storage or disposal.

8. Exposure Controls/Personal Protection

Engineering Controls: Not normally required. Work in a well-ventilated area.

Personal Protective Equipment:

To avoid eye and skin contact, wearing the following personal protective clothing and equipment is recommended:

Eyes: Safety goggles or face shield

Clothing: Cotton overalls buttoned to the neck and wrist and a washable hat.

Gloves: Elbow length PVC gloves.

Respiratory: Respiratory protection is not normally required. If airborne concentrations are likely to exceed the exposure standard above, an AS/NZS 1715/1716 approved respirator should be worn.

Other: After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves, goggles or face shield and contaminated clothing.

9. Physical and Chemical Properties

Appearance: Yellow powder

Melting point: Decomposes at 140°C.

Specific gravity: 0.533g/ml (water=1)

PH: 5.9-6.2 (in water)

Stability: Insoluble in water, ethanol, acetone and benzene. Soluble in pyridine. Decompose in light, instable in strong acid and alkali medium.

Vapor Pressure: < 0.01mPa(20°C).

10. Stability and Reactivity

Chemical stability: Stable under normal use and storage conditions.

Conditions to avoid: None known

Incompatibility with other materials: None known

Hazardous decomposition products: Can decompose at high temperatures forming toxic gases.

Hazardous polymerization: Will not occur

11. Toxicological Information

Acute oral LD₅₀ (rat): >5000mg/kg

Acute dermal LD₅₀ (rabbit): >2000mg/kg

Eye irritation (rabbit): Causes moderate eye irritation.

Skin irritation (rabbit): Not an irritant.

Inhalation LC₅₀ (rat): 2.71mg/l (4HR)

Skin sensitization (guinea pig): Not a sensitizer

Carcinogenic potential: Not available

12. Ecological Information

The product is toxic to fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters.

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.