



Hangzhou Tianlong Biotechnology Co., Ltd.

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MATERIAL SAFETY DATA SHEET

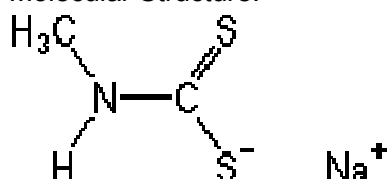
1. Chemical Product and company Identification

Product Name: Metam sodium

Molecular Formula: C₂H₄NNaS₂

Molecular Weight: 129.17

Molecular Structure:



Chemical Name: sodium methylcarbamodithioate

CAS No.: 137-42-8

Supplier: HANZHOU TIANLONG BIOTECHNOLOGY CO., LTD

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2. Composition / Information on Ingredients

Composition	CAS No.	Content %
Metam sodium	137-42-8	95.0
Other ingredients		5.0

3. Hazards Summarizing

Emergency overview: Danger! Dilution with water may generate poisonous gases (Methyl isothiocyanate (MITC) or Hydrogen sulfide). Dilution with acids may generate flammable gases (Carbon disulfide or Monomethylamine).

Warning: Product is corrosive to skin, prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Harmful if swallowed. Harmful if inhaled. Harmful if absorbed through the skin. Irritating to eyes, nose and throat. Do not get on skin or clothing. Avoid breathing vapor or spray mist. Do not get in eyes.

4. First Aid Measures

Eye Contact: If this product comes in contact with the eyes: Wash out immediately with fresh running water at least 10-15 minutes. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

Skin Contact: If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available).

Inhalation: If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested.

Ingestion: If swallowed, refer for medical attention, where possible, without delay. Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise.

5. Fire-Fighting Measures

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

Fire fighting instructions: Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Contain contaminated water/fire fighting water. Dike area to prevent runoff and contamination of water sources. Equipment or materials involved in pesticide fires may become contaminated. Prevent use of contaminated buildings, area, and equipment until decontaminated.

Wear self-contained breathing apparatus and protective suit.

6. Accidental Release Measures

Small release: Confine and absorb small releases on sand, earth or other inert absorbent (clay, sawdust, straw, kitty litter, etc.). sweep into open drums. Clean area with baking soda, soda ash (sodium carbonate) or common household detergent and a stiff brush and just enough water to make a slurry. Absorb and sweep into same open drum. Rinse area with water, absorb water and add to open drum. Close drum and dispose of material in accordance with federal and state governmental regulations.

Large releases: Confine area to qualified personnel. Shut off release if safe to do so. Dike spill area to prevent runoff into sewers, drains or surface waterways (potential toxicity). Recover as much of the solution as possible. Treat remaining material as a small release (above).

7. Handling and Storage

Handling: Avoid contact with eyes. Use only in a well ventilated area. Wash thoroughly after handling. Avoid prolonged or repeated breathing of vapors. Avoid prolonged or repeated contact with the skin.

Storage: Store in cool, dry, well ventilated areas. Do not store combustibles in the area of storage vessels. Keep away from any sources of heat or flame. Store tote and smaller containers out of direct sunlight at moderate temperatures.

8. Exposure Controls/Personal Protection

Engineering controls: A well-ventilated area is recommended for handling Metam sodium. Use of mechanical or local exhaust systems is recommended.

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: White crystal powder with irritating odor

Melting Point: -60°C.

Boiling point: 218°C

Vapour Pressure: <0.00001mPa(20°C), 2.5mPa(100°C).

Solubility: Soluble in water 722g/L at 20°C, soluble in methanol, Hardly soluble in other organic solvents. Decompose in acid and heavy metallic salt medium.

10. Stability and Reactivity

Stability: Stable under normal conditions.

Conditions to avoid: No data available.

Materials to avoid: Acid

11. Toxicological Information

Acute toxicity:

Oral (male rate) LD₅₀: 820mg/kg

Dermal (rabbit) LD₅₀: 800mg/kg

Eye irritation: irritation to eyes

Sensitization: Not data

Reproductive & Developmental Toxicity: No data available

Mutagenicity: No data available

12. Ecological Information

This product is toxic to fish. No toxicity to bees.

13. Disposal Considerations

Triple or, preferably, pressure rinse containers before disposal. Add rinsings to the spray tank. Do not dispose of undiluted chemicals on-site. Break, crush or puncture and bury empty containers in local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots.

Empty containers or product should not be burnt.

14. Transport Information

Not dangerous goods

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.