



MATERIAL SAFETY DATA SHEET

Manufacturer/information service:

ZHEJIANG RAYFULL CHEMICALS CO.,LTD

ADD: NO.52 PUCHANG ROAD, PUZHOU INDUSTRIAL PARK, LONGWAN DISTRICT,
WENZHOU ZHEJIANG P.R. CHINA

Tel: +86-577-88905587

Fax: +86-577-88905567

Email: info@rayfull.com

sales@rayfull.com

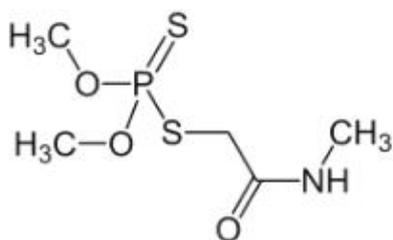
1. Chemical Product Identification

Product Name: Dimethoate 98% TC

Molecular Formula: C₅H₁₂NO₃PS₂

Molecular Weight: 229.12 g/mol

Structural Formula:



Chemical Name: 2-dimethoxyphosphinothiolythio-N-methylacetamide

Form: crystal solid

Colour: grey-white

Odour: Camphor odor

CAS No.: 60-51-5

2. Composition / Information On Ingredients

Composition	Chemical name	Content (% w/w)
Active ingredient	Dimethoate	98%
Other ingredient	-----	2%



3. Hazards Identification

Signal word: caution

Toxicity class: III

Primary route of entry: Inhalation, absorption, skin contact.

4. First Aid Measures

If swallowed: Give 1 atropine tablet every 5 minutes until dryness of the mouth occurs. If poisoned by skin absorption or through lungs, remove any contaminated clothing and wash skin thoroughly and give atropine tablets as above. Get to a doctor or hospital quickly.

If inhaled: Remove patient to fresh air and allow them to rest and keep warm. Loosen clothing. If irritation or symptoms persist after 30 minutes, seek medical advice.

If in eyes: Immediately irrigate with plenty of water for at least 15 minutes. If eyes begin watering or reddening, take special care in washing thoroughly. Seek medical assistance.

If on skin: Remove contaminated clothing and shoes. Wash affected areas of skin with plenty of soap and water for at least 15 minutes. Seek medical assistance. If a safety shower is available, use it promptly. Because of the toxicity of this product, speed may save a life. Launder contaminated clothing before re-using.

Advise to doctor: This product is a cholinesterase inhibitor. Atropine treatment may be necessary along with 1g IV Pralidoxime for profound weakness or muscle twitching. Curare therapy is contraindicated. Do NOT give aminophylline, succinylcholine, phenothiazines, or reserpine alkaloids or oils. Treat pulmonary pneumonitis and bronchopneumonia secondary to pulmonary oedema.

5. Fire-Fighting Measures

Flammable Limits: lower: 1.3% vol.

upper: 9.4% vol.

Lower explosive limit (LEL): data unavailable

Upper explosive limit (UEL): data unavailable

Fire extinguishing media: Water spray, foam, carbon dioxide, dry extinguishing media.

Special fire fighting procedures: Fire fighters should use self contained breathing apparatus and full turnout gear. Prevent runoff of fire water. Avoid exposure to smoke.

Unusual fire and explosion hazards: Noxious fumes may be emitted under fire conditions.



6. Accidental Release Measures

Personal precautions: Use personal protective clothing.

Environmental precautions: Do not allow material to enter sewers, surface and ground water, soil. If contamination occurs inform Authorities.

Methods for cleaning up or taking up:

For large amounts: Pump off product.

For residues: Contain spill. Absorb spilled product with inert materials. Wash contaminated areas with soda solution, absorb with inert material and send to disposal.

7. Handling And Storage

Handling

Precautions to avoid fire and explosion:

- avoid accumulation of electrostatic charges
- keep away from flames and sparks. Do not smoke

Handle under adequate ventilation.

Storage

In original packaging under normal storage condition. Packages should not be exposed to direct sunlight and must be kept unopened and undamaged.

Storage stability:

Storage duration: 24 Months

8. Exposure Controls/personal protection

Personal protective equipment

Hand protection: Chemical-resistant gloves

Eye protection: Chemical tight goggles, full faceshield in addition if splashing is possible.

Body protection: Protective suit

General safety and hygiene measures: Handle in accordance with good industrial hygiene and safety practice. No eating, drinking, smoking or snuff taking at the place of work. Keep away from food, drink and animal feeding stuff.

9. Physical And Chemical Properties

Appearance: Grey-white crystalline solid.

Odor: Camphor odor



Density: 1.31g/cm³ at 20°C

Melting point : 50.5°C

Solubility: In water: 3980 mg/L at 20°C

In organic solvent: s. in methanol and cyclohexane; s.s in aliphatic hydrocarbons, aromatic hydrocarbons, diethyl ether, carbon tetrachloride, hexane, and xylene; v.s. in chloroform, benzene.

10. Stability And Reactivity

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Substances to avoid: alkalies, oxidizing agents

Hazardous reactions: They may occur in presence of alkalies. Flammable mixtures may occur in presence of air by heating above flash point value and/or if sprayed or nebulized.

Hazardous decomposition products: Following compounds are possible: CO_x , SO₂ , NO_x , PO_x, orthophosphoric acid, organic compound(s) of phosphorus and flammable gases/vapors.

11. Toxicological Information

Acute oral LD₅₀ for rat: 245 mg/kg.

Acute dermal LD₅₀ for rat: >2000 mg/kg.

Inhalation LC₅₀ (4 h) for rat: 1.68 mg/L.

Skin irritation: Mildly- irritating to skin (rabbits).

Eye irritation: Mildly - irritating to eyes (rabbits).

Skin Sensitization: Not a skin sensitiser (guinea pigs).

12. Ecological And Ecotoxicological Information

Effect on birds: high toxicity to birds, acute oral LD₅₀ for *Colinus virginianus* is 10.5 mg/kg.

Effect on fish: moderate toxicity to fish, acute 96 hour LC₅₀ for Rainbow trout is 30.2 mg/L.

Effect on aquatic invertebrates: moderate toxicity to aquatic invertebrates, acute 48 hour EC₅₀ for *Daphnia magna* is 2 mg/L.

Effect on algae: low toxicity to algae, acute 72 hour EC₅₀ for *Raphidocelis subcapitata* is 90.4 mg/L.

Effect on honeybees: high toxicity to honeybees, contact acute 48 hour LD₅₀ is 0.1 µg/bee;

Oral acute 48 hour LD₅₀ is 0.1 µg/bee.



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Effect on earthworms: moderate toxicity to earthworms, acute 14 day LC₅₀ for Eisenia foetida is 31 mg/kg.

13. Disposal Considerations

Must be dumped or incinerated in accordance with local regulations.

Contaminated packaging: Packs that cannot be cleaned should be disposed of in the same manner as the contents. Contaminated packaging should be emptied as far as possible and disposed of in accordance with official regulations after being thoroughly cleaned.

Uncontaminated packaging may be treated as household waste.

14. Transport Information

UN No.: 2873

Subsidiary Risk Class: NA

Packing Group: III

HAZCHEM: 2[Z]

Marine Pollutant: YES

15. Regulatory Information

According to country-specific requirements either the content of terbuthylazine and related compounds or the content of terbuthylazine shall be declared.

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.