



# Material Safety Data Sheet

12601 Twinbrook Parkway,  
Rockville, MD 20852 USA

Phone Calls: 301-816-8129  
8 a.m. to 5 p.m. EST Mon. - Fri.

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## TRIMETHADIONE

Catalog Number: 1690000

Revision Date:

March 13, 2006

### SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

**Common Name:** Trimethadione

**Manufacturer:** U. S. Pharmacopeia

**Responsible Party:** Reference Standards Technical Services

**Mailing Address:** 12601 Twinbrook Parkway, Rockville, MD 20852 USA

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**Product Use:** USP Reference Standards and Authentic Substances are used for chemical tests and assays in analytical, clinical, pharmaceutical, and research laboratories.

### SECTION 2 - HAZARD INFORMATION

#### EMERGENCY OVERVIEW - Reproductive Hazard.

**Adverse Effects:** Adverse effects include burning taste, vision disturbances (including day blindness), increased sensitivity of eyes to light, mood or behavioral changes, blood pressure changes, headache, irritability, drowsiness, nausea, dizziness, stomach pain, loss of appetite, hair loss, hiccups, trouble sleeping, tingling or burning sensation, loss of muscle coordination, skin rash, sore throat, fever, and vomiting. Possible allergic reaction to material if inhaled, ingested, or in contact with skin.

**Overdose Effects:** Overdose symptoms include clumsiness or unsteadiness, vision problems, severe drowsiness, severe nausea, and coma.

**Acute:** Possible eye, skin, gastrointestinal, and/or respiratory tract irritation.

**Chronic:** Possible hypersensitization.

**Medical Conditions Aggravated by Exposure:** Hypersensitivity to material, severe blood dyscrasias, eye or optic nerve diseases, and severely impaired liver or kidney function.

**Cross Sensitivity:** Persons hypersensitive to paramethadione may be hypersensitive to this material also.

**Target Organs:** Kidneys and immune system

**For additional information on toxicity, see Section 11.**

### SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

**Common Name:** Trimethadione

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**Formula:** C<sub>6</sub>H<sub>9</sub>NO<sub>3</sub>

**Synonym:** Troxidone

**Chemical Name:** 2,4-Oxazolidinedione, 3,5,5-trimethyl-

**CAS:** 127-48-0

**RTECS Number:** RQ2100000

**Chemical Family:** Oxazolidinedione

**Therapeutic Category:** Anticonvulsant

**Composition:** Pure Material

## SECTION 4 - FIRST AID MEASURES

**Inhalation:** May cause irritation. Avoid inhalation. Remove to fresh air.

**Eye:** May cause irritation. Flush with copious quantities of water.

**Skin:** May cause irritation. Flush with copious quantities of water.

**Ingestion:** May cause irritation. Flush out mouth with water.

**General First Aid Procedures:** Remove from exposure. Remove contaminated clothing. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention. If person is not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention.

### Note to Physicians

**Overdose Treatment:** Overdose treatment includes general supportive care; gastric emptying, either by induced vomiting, lavage, or both, should be done immediately.

## SECTION 5 - FIREFIGHTING MEASURES

**Extinguisher Media:** Water spray, dry chemical, carbon dioxide, or foam as appropriate for surrounding fire and materials.

**Fire and Explosion Hazards:** This material is assumed to be combustible. As with all dry powders, it is advisable to ground mechanical equipment in contact with dry material to dissipate the potential buildup of static electricity.

**Firefighting Procedures:** As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**Spill Response:** Wear approved respiratory protection, chemically compatible gloves, and protective clothing. Wipe up spillage or collect spillage using a high efficiency vacuum cleaner. Avoid breathing dust. Place spillage in appropriately labeled container for disposal. Wash spill site.

## SECTION 7 - HANDLING AND STORAGE

**Handling:** As a general rule, when handling USP Reference Standards, avoid all contact and inhalation of dust, mists, and/or vapors associated with the material. Wash thoroughly after handling.

**Storage:** Store in tight container at room temperature as defined in the USP-NF. This material should be handled and stored per label instructions to ensure product integrity.

## SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

**Engineering Controls:** Engineering controls such as exhaust ventilation are recommended.

**Respiratory Protection:** Use a NIOSH-approved respirator, if it is determined to be necessary by an industrial hygiene survey involving air monitoring. In the event that a respirator is not required, an approved dust mask should be used.

**Gloves:** Chemically compatible

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**Eye Protection:** Safety goggles or glasses

**Protective Clothing:** Protect exposed skin.

**Exposure Limits:** n/f

<b>SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES</b>
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Properties as indicated on the MSDS are general and not necessarily specific to the USP Reference Standard Lot provided.

**Appearance and Odor:** White crystalline granules or powder; camphor-like odor.

**Odor Threshold:** n/f

**pH:** Approximately 6.0 (in a 5% aqueous solution)

**Melting Range:** 45 - 47° C

**Boiling Point:** 78 - 80° C

**Flash Point:** n/f

**Autoignition Temperature:** n/f

**Evaporation Rate:** n/f

**Upper Flammability Limit:** n/f

**Lower Flammability Limit:** n/f

**Vapor Pressure:** n/f

**Vapor Density:** n/f

**Specific Gravity:** >1

**Solubility in Water:** Partially soluble

**Fat Solubility:** n/f

**Other Solubility:** Very soluble in alcohol, in chloroform, and in ether; freely soluble in benzene; practically insoluble in petroleum ether.

**Partition Coefficient: n-octanol/water:** n/f

**Percent Volatile:** n/f

**Reactivity in Water:** n/f

**Explosive Properties:** n/f

**Oxidizing Properties:** n/f

**Formula:** C<sub>6</sub>H<sub>9</sub>NO<sub>3</sub>

**Molecular Weight:** 143.14

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## SECTION 10 - STABILITY AND REACTIVITY

**Conditions to Avoid:** Avoid extreme temperatures.

**Incompatibilities:** n/f

**Decomposition Products:** When heated to decomposition, material emits toxic fumes of NO<sub>x</sub>. Emits toxic fumes under fire conditions.

**Stable?** Yes      **Hazardous Polymerization?** No

## SECTION 11 - TOXICOLOGICAL PROPERTIES

**Oral Rat:** LD50: 2140 mg/kg

**Oral Mouse:** LD50: 2100 mg/kg

**Other Toxicity Data:** n/f

**Irritancy Data:** n/f

**Corrosivity:** n/f

**Sensitization Data:** n/f

**Listed as a Carcinogen by:**      **NTP:** No      **IARC:** No      **OSHA:** No

**Other Carcinogenicity Data:** No

**Mutagenicity Data:** n/f

**Reproductive and Developmental Effects:** Therapeutic use of trimethadione during pregnancy has resulted in an increased incidence of birth defects in the offspring, including cleft palate, malformed ears, and skeletal abnormalities, as well as developmental delays, speech problems, and short stature.

## SECTION 12 - ECOLOGICAL INFORMATION

**Ecological Information:** n/f

## SECTION 13 - DISPOSAL CONSIDERATIONS

**Disposal:** Dispose of waste in accordance with all applicable Federal, State and local laws.

## SECTION 14 - TRANSPORT INFORMATION

**Shipping Name:** n/f

**Class:** n/f

**UN Number:** n/f

**Packing Group:** n/f

**Additional Transport Information:** n/f

## SECTION 15 - REGULATORY INFORMATION

**U.S. Regulatory Information:** California Proposition 65 Developmental Toxin

**International Regulatory Information:** EINECS#: 204-845-8

Hazard code: T

Risk phrases: R61, R20/21/22

Safety phrases: S53, S22, S36/37/39, S45

## SECTION 16 - OTHER INFORMATION

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**TRIMETHADIONE****Catalog Number:** 1690000**Revision Date:**March 13, 2006

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