

# M S D S

MATERIAL SAFETY DATA SHEET

*Lilly*

POSTER  
10-22-91

Rev 1991

COMMON NAME: Thimerosal (Lilly Nos.: QAD41U, LSN-006739)  
REVISED DATE: June 13, 1991

EMERGENCY TELEPHONE: 317-276-2000 CHEMTREC TELEPHONE: 1-800-424-9300

As of the date of issuance, we are providing available information relevant to the handling of this material in the workplace. All information contained herein is offered with the good faith belief that it is accurate. However, this safety data sheet does not constitute a warranty of any kind, express or implied. In the event of an adverse incident associated with this material, this safety data sheet is not intended to be a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for product literature which may accompany the finished product.

See attached glossary for abbreviations.

## SECTION 1 - MATERIAL IDENTIFICATION

Common Name: Thimerosal

Chemical Name: Ethyl mercurithiosalicylic acid (sodium salt)

Synonyms/Trade Names: Merthiolate®

CAS Number: 54-64-8

Molecular Formula:  $C_9H_9HgOS_2 \cdot Na$

Chemical Family: Organomercurial salt

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SECTION 2 - PHYSICAL DATA

Appearance: Light, cream-colored, crystalline powder	Odor: Faint metallic odor/taste
Evaporation Rate: NAIF	Boiling Point: NA
Solubility in Water: Soluble	Melting Point: Starts to decompose at about 230°C (446°F)
Vapor Density: NAIF	Specific Gravity: NA
Vapor Pressure: NAIF	pH: 6.7 (1% aqueous)

SECTION 3 - FIRE AND EXPLOSION INFORMATION

Extinguishing Media: Use water, CO<sub>2</sub>, dry chemical, foam, or Halon.

Unusual Fire and Explosion Hazards: Will emit toxic fumes when heated to decomposition.

Flash Point: NAIF      Method: NA      UEL: NAIF      LEL: NAIF

SECTION 4 - REACTIVITY INFORMATION

Stability: Stable at normal temperatures and pressures.

Incompatibility: May react with strong oxidizing agents (e.g., peroxides, permanganates, nitric acid, etc.).

Hazardous Decomposition: Will emit toxic fumes when heated to decomposition.

Hazardous Polymerization: Not known to occur.

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## SECTION 5 - HEALTH HAZARD INFORMATION

### CALIFORNIA PROPOSITION 65 WARNING

**WARNING:** This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

### Human - Occupational

**Effects, Including Signs and Symptoms, of Exposure:** Topical allergic dermatitis has been reported. Thimerosal contains mercury. Mercury poisoning can occur and topical hypersensitivity reactions may be seen. Early signs of mercury poisoning in adults are nervous system effects, including narrowing of the visual field and numbness in the extremities. Exposure to mercury in utero and in children can cause mild to severe mental retardation and mild to severe motor coordination impairment. Based on animal data, may be irritating to the eyes.

**Medical Conditions Aggravated by Exposure:** Hypersensitivity to mercury.

**Primary Route(s) of Entry:** Inhalation and skin contact.

**Exposure Guidelines:** PEL and TLV 0.1 mg/m<sup>3</sup> (aryl mercury)

### Animal Toxicity Data Single Exposure

**Oral:** Rat, median lethal dose 73 mg/kg, reduced activity, drooping eyelids, weakness.

**Skin:** NAIF

**Inhalation:** NAIF

**Intravenous:** Rat, 45 mg/kg, mortality.

**Skin Contact:** Rabbit, nonirritant

**Eye Contact:** Rabbit, irritant

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SECTION 5 - HEALTH HAZARD INFORMATION (CONTINUED)

Animal Toxicity Data Repeat Exposure

Target Organ Effects: NAIF

Other Effects: Decreased weight gain.

Reproduction/Teratology: No teratogenic effects are known for thimerosal. However, the mercury component has caused nervous system effects in experimental animals, including mild to severe mental retardation and motor coordination impairment.

Sensitization: NAIF

Mutagenicity: NAIF

Carcinogenicity: No carcinogenicity data found. Not listed as carcinogenic by IARC, NCI/NTP, ACGIH, or OSHA.

SECTION 6 - EMERGENCY AND FIRST AID PROCEDURES

Eyes: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. See an ophthalmologist (eye doctor) or other physician immediately.

Skin: This product is intended for topical application to the skin. However, in case of unintentional exposure, especially to large areas of skin, wash with soap and water. If symptoms develop consult a physician.

Inhalation: Move individual to fresh air. Get medical attention if breathing difficulty occurs. If not breathing, provide artificial respiration assistance (mouth-to-mouth) and call a physician immediately.

Ingestion: Call a physician or poison control center. Drink one or two glasses of water and give 1-2 tablespoons syrup of ipecac to induce vomiting. Do not induce vomiting or give anything by mouth to an unconscious person. Use of chelating agents such as BAL may be needed to treat ingestion of mercury. Immediately transport to a medical care facility and see a physician.

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## SECTION 7 - HANDLING PRECAUTIONS

Under normal use and handling conditions, no protective equipment is required. The following is recommended for a production setting:

**Respiratory Protection:** NIOSH approved respirator or laboratory fume hood.

**Eye Protection:** Goggles or appropriate respirator with eye protection.

**Ventilation:** Laboratory fume hood or local exhaust ventilation.

**Other Protective Equipment:** Impervious gloves and body covering to prevent skin contact.

**Other Handling Precautions:** In production settings, airline-supplied, hood-type respirators are preferred to provide face, eye, and respiratory protection. Shower and change clothing if skin contact occurs.

## SECTION 8 - SPILL, LEAK AND DISPOSAL PROCEDURES

**Spills:** Contain dry material by sweeping up or vacuuming. Vacuuming may disperse dust if appropriate dust collection filter is not part of the vacuum. Be aware of potential for dust explosion when using electrical equipment. Wear protective equipment, including eye protection, to avoid exposure (see Section 7 for specific handling precautions).

**Waste Disposal:** Dispose of any cleanup materials and waste residues according to applicable federal, state, and local regulations. Avoid contamination of water sources. If this commercial chemical product is disposed of in its present form, it is a RCRA hazardous waste. The following waste code may apply: D009.

**CAUTION:** Contains mercury in organic form.

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SECTION 9 - SHIPPING INFORMATION  
(Proper Shipping Name / Hazard Class / UN Number)

DOT: Not regulated for domestic transportation.

ICAO: Poisonous solid, N.O.S. (Thimerosal) / 6.1 / UN2811

IMO: Poisonous solid, N.O.S. (Thimerosal) / 6.1 / UN2811

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For additional information call: Occupational Health and Safety  
Eli Lilly and Company 317/276-2286