



Material Safety Data Sheet

NFPA 	HMIS <table border="1" style="margin: auto;"> <tr><td style="background-color: #00FFFF;">Health Hazard</td><td style="text-align: center;">2</td></tr> <tr><td style="background-color: #FFCCCC;">Fire Hazard</td><td style="text-align: center;">1</td></tr> <tr><td style="background-color: #FFFF00;">Reactivity</td><td style="text-align: center;">0</td></tr> </table>	Health Hazard	2	Fire Hazard	1	Reactivity	0	Personal Protective Equipment  See Section 15.
Health Hazard	2							
Fire Hazard	1							
Reactivity	0							

Section 1. Chemical Product and Company Identification		Page Number: 1
Common Name/Trade Name	Thimerosal	Catalog Number(s). XX888, T1034, T1043, YY948, TH125
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	CAS# 54-64-8
Commercial Name(s)	Not available.	RTECS OV8400000
Synonym	Ethylmercurithiosalicylic acid sodium salt; Ethyl (sodium o-mercaptobenzoato)mercury; Ethyl(2-mercaptobenzoato-S)mercury sodium salt; Sodium O-(Ethylmercurithio)benzoate; Mercurate(1-), ethyl[2(mercapto-.kappa.S)benzoato(2)-.kappa.O]-((o-Carboxyphenyl)thio)ethylmercury sodium salt; Merthiolate; Merthiolate sodium; Merzonin; Merzonin sodium; Sodium ethylmercuric thiosalicylate; Sodium o-(ethylmercurithio)benzoate; o-(Ethylmercurithio)benzoic acid sodium salt; Thimerosalate; Thiomersal	TSCA TSCA 8(b) inventory: Thimerosal
Chemical Name	Mercury, ((o-carboxyphenyl)thio)ethyl-, sodium salt	CI# Not available.
Chemical Family	Not available.	IN CASE OF EMERGENCY CHEMTREC (24hr) 800-424-9300 CALL (310) 516-8000
Chemical Formula	C9H9HgNaO2S	
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	

Section 2. Composition and Information on Ingredients					
Name	CAS #	Exposure Limits			% by Weight
		TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	
1) Thimerosal	54-64-8	0.1			100
Toxicological Data on Ingredients					
Thimerosal: ORAL (LD50): Acute: 75 mg/kg [Rat]. 91 mg/kg [Mouse].					

Section 3. Hazards Identification	
Potential Acute Health Effects	Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation (lung irritant). Slightly hazardous in case of skin contact (permeator). Severe over-exposure can result in death.

Potential Chronic Health Effects	<p>Slightly hazardous in case of skin contact (sensitizer).</p> <p>CARCINOGENIC EFFECTS: Not available.</p> <p>MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells.</p> <p>TERATOGENIC EFFECTS: Not available.</p> <p>DEVELOPMENTAL TOXICITY: Not available.</p> <p>The substance is toxic to kidneys, central nervous system (CNS). The substance may be toxic to liver, spleen.</p> <p>Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.</p>
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Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Serious Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Serious Inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. Seek medical attention.
Ingestion	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
Serious Ingestion	Not available.

Section 5. Fire and Explosion Data

Flammability of the Product	May be combustible at high temperature.
Auto-Ignition Temperature	Not available.
Flash Points	CLOSED CUP: >250°C (482°F).
Flammable Limits	Not available.
Products of Combustion	These products are carbon oxides (CO, CO ₂). Some metallic oxides.
Fire Hazards in Presence of Various Substances	Slightly flammable to flammable in presence of heat. Non-flammable in presence of shocks.
Explosion Hazards in Presence of Various Substances	Slightly explosive in presence of open flames and sparks. Non-explosive in presence of shocks.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Special Remarks on Fire Hazards	As with most organic solids, fire is possible at elevated temperatures
Special Remarks on Explosion Hazards	Fine dust dispersed in air in sufficient concentrations, and in the presences of an ignition source is a potential dust explosion hazard.

Section 6. Accidental Release Measures

Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container.
Large Spill	Poisonous solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7. Handling and Storage

Precautions	Keep away from heat. Keep away from sources of ignition. Do not ingest. Do not breathe dust. Avoid contact with skin. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area. Sensitive to light. Store in light-resistant containers.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	TWA: 0.1 from ACGIH (TLV) [United States] TWA: 0.1 (mg/m ³) from OSHA (PEL) [United States] TWA: 0.05 CEIL: 0.1 (mg/m ³) from NIOSH [United States] Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical state and appearance	Solid. (crystalline powder.)	Odor	Not available.
Molecular Weight	404.82 g/mole	Taste	Not available.
pH (1% soln/water)	6.7 [Neutral.]	Color	Off-white. White.
Boiling Point	Not available		
Melting Point	Decomposition temperature: 232°C (449.6°F)		
Critical Temperature	Not available.		
Specific Gravity	Not available.		
Vapor Pressure	Not applicable.		
Vapor Density	Not available.		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	Not available.		
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water.		
Solubility	Easily soluble in cold water, hot water. Insoluble in diethyl ether. 1 gram dissolves in about 1 ml of water. 1 gram dissolves in about 8 ml of alcohol. Practically insoluble in benzene		

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Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Excess heat, light, dust generation, incompatible materials
Incompatibility with various substances	Reactive with oxidizing agents, acids, alkalis.
Corrosivity	Non-corrosive in presence of glass.
Special Remarks on Reactivity	Light sensitive.
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 75 mg/kg [Rat].
Chronic Effects on Humans	MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Causes damage to the following organs: kidneys, central nervous system (CNS). May cause damage to the following organs: liver, spleen.
Other Toxic Effects on Humans	Hazardous in case of skin contact (irritant), of ingestion, of inhalation (lung irritant). Slightly hazardous in case of skin contact (permeator).
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	May cause adverse reproductive effects and developmental defects (female fertility - post implantation mortality, fetotoxicity). May affect genetic material
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: Causes skin irritation. It may be absorbed through the skin and cause systemic effects. Eyes: Causes eye irritation. May cause chemical conjunctivitis. Inhalation: Causes respiratory tract irritation. Exposures to high concentrations may produce unconsciousness with cyanosis(a bluish discoloration of the skin due to deficient oxygenation of the blood) and cold extremities and may also affect the cardiovascular system (rapid pulse). Acute exposure to high concentrations may also affect behavior/central nervous system, peripheral nervous system and autonomic nervous system, and cause nausea and headaches. It may also affect the kidneys (nephrosis, renal failure, proteinuria, tubular necrosis). Ingestion: Harmful if swallowed. May cause gastrointestinal tract irritation with abdominal pain, nausea, vomiting, diarrhea, headache. Exposure to high concentrations may affect respiration (apnea), and cardiovascular system which may produce unconsciousness with cyanosis, cold extremities and rapid pulse. May also cause central nervous system (neurological)effects (see chronic ingestion), and may affect the urinary system (kidneys - acute renal failure with glycosuria, proteinuria),and liver (hepatic enzyme disturbances). Chronic Potential Health Effects: Skin: Prolonged or repeated skin contact may cause skin sensitization, an allergic reaction (allergic skin reaction) Ingestion/Inhalation: Chronic exposure may cause accumulation of mercury in body tissues and may result in "asethenic vegetative syndrome" or "(micro)mercurialism." Central nervous system/nervous system effects, gastrointestinal and renal effects primarily occur with chronic exposure. Gastrointestinal effects may include abdominal pain, nausea, vomiting, diarrhea, gingivitis, stomatitis, increased salivation. Central nervous system/nervous system effects may include depression, excitability/irritability, nervousness, weakness, fatigue, ataxia, incoordination, fatigue, sleepiness, tremor, jerky gait, limb spasms, personality/mental changes, headaches, weakening of memory, decline in intellectual capacity, motor or sensory disturbances, speech problems, numbness and tingling in extremities. Liver and kidney effects may include hepatic enzyme disturbances, and Bleeding of gums/gingivitis, loosening of teeth, swelling of the nasal membranes, vision problems, hearing problems as well as metabolic effects (anorexia, weight loss, metabolic acidosis, hypokalemia) and effects on the brain may also occur. Prolonged or repeated inhalation may cause allergic reaction. Medical Conditions Aggravated by Exposure: Hypersensitivity to material.

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Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Disposal	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
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Section 14. Transport Information

DOT Classification	CLASS 6.1: Poisonous material.
Identification	UNNA: 2025 : Mercury compound, solid, n.o.s. (Thimerosal) PG: III
Special Provisions for Transport	Not available.
DOT (Pictograms)	

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations	<p>California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Thimerosal (listed as Mercury and Mercury compounds)</p> <p>California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Thimerosal (listed as Mercury and Mercury compounds)</p> <p>TSCA 8(b) inventory: Thimerosal</p> <p>SARA 313 toxic chemical notification and release reporting: Thimerosal (listed as Mercury and Mercury compounds)</p> <p>CERCLA: Hazardous substances.: Thimerosal (listed as Mercury and Mercury compounds): 1 lbs. (0.4536 kg)</p>
California Proposition 65 Warnings	<p>California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.</p> <p>California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Thimerosal (listed as Mercury and Mercury compounds)</p>
Other Regulations	<p>OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).</p> <p>EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 200-210-4).</p> <p>Canada: Listed on Canadian Domestic Substance List (DSL).</p> <p>China: Listed on National Inventory.</p> <p>Japan: Not listed on National Inventory (ENCS).</p> <p>Korea: Listed on National Inventory (KECI).</p> <p>Philippines: Listed on National Inventory (PICCS).</p> <p>Australia: Listed on AICS.</p>

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Other Classifications

WHMIS (Canada)

CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC).
 CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

DSCL (EEC)


R26/27/28- Very toxic by inhalation, in contact with skin and if swallowed.
 R33- Danger of cumulative effects.
 R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S13- Keep away from food, drink and animal feedingstuffs.
 S28- After contact with skin, wash immediately with plenty of [***]
 S36- Wear suitable protective clothing.
 S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 S60- This material and its container must be disposed of as hazardous waste.
 S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

HMIS (U.S.A.)

Health Hazard	2
Fire Hazard	1
Reactivity	0
Personal Protection	E

National Fire Protection Association (U.S.A.)

Health  Flammability
 Reactivity
 Specific hazard

WHMIS (Canada) (Pictograms)



DSCL (Europe) (Pictograms)



TDG (Canada) (Pictograms)



ADR (Europe) (Pictograms)



Protective Equipment



Gloves.



Lab coat.



Dust respirator. Be sure to use an approved/certified respirator or equivalent.



Safety glasses.

Section 16. Other Information**MSDS Code** T3380**References** Not available.**Other Special Considerations** Thimerosal is a Mercury compound. It is on the Prop. 65 list as a Mercury compound. Under Prop. 65, Mercury and Mercury compounds are listed as "Chemicals known to the State of California to Cause Reproductive Toxicity."

Validated by Sonia Owen on 3/25/2013.

Verified by Sonia Owen.

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CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.