

Product Name: Streptavidin-Alkaline Phosphatase

Reviewed on: 29 August 2018

1. Identification of Substance:

- **Other means of identification: Catalog Number:** AR001
- **GHS product identifier:** Streptavidin-Alkaline Phosphatase
- **Application of the substance / the preparation:** For Research Use Only
 - **Manufacturer/Supplier:**
Bio-Techne - R&D Systems Inc.
614 McKinley Place N.E.
Minneapolis, MN 55413 USA
1-800-343-7475
- **For product related questions call:** 1-800-343-7475 or 1-612-379-2956, In Europe call: +44(0)1235-529449.
- **Emergency information:** In case of a chemical emergency, spill, leak, fire, or accident, call CHEMTREC at 1-800-424-9300 (USA or Canada). Outside USA or Canada: +1 703-527-3887 (collect calls accepted).

2. Hazard Identification:

- **Classification: Regulation (EC) No. 1272/2008 (CLP/EU-GHS), 29 CFR 1910.1200 (OSHA):** Thimerosal Solution

Acute Toxicity, Oral 2
Acute Toxicity, Inhalation 2
Acute Toxicity, Dermal 1
Acute Aquatic Toxicity 1
Chronic Aquatic Toxicity 1



Signal Word: **DANGER**

- **Hazard Statements:** H300: Fatal if swallowed, H310: Fatal in contact with skin, H330: Fatal if inhaled, H373: May cause damage to organs through prolonged or repeated exposure, H410 Very toxic to aquatic life with long lasting effects.
- **Precautionary Statements:** P260: Do not breathe dust/ fume/ gas/ mist/ vapours/ spray, P262: Do not breathe dust/fumes/gas/vapours/spray, P264: Wash hands thoroughly after handling, P270: Do not eat, drink or smoke when using this product, P271: Use only outdoors or in well-ventilated area, P273: Avoid release to the environment, P280: Wear protective gloves/ protective clothing, P284: Wear respiratory protection.
- **Responses:**
IF SWALLOWED: Immediately call a Poison Control Center or physician. See specific treatment in this MSDS. Rinse mouth. Do NOT induce vomiting.
IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell. See specific treatment in this MSDS. Remove/take off immediately all contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately Call a POISON CENTER or doctor/physician. See specific treatment in this MSDS.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

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3. Information on Ingredients:

Description: Thimerosal solution **Synonyms:** 2-(Ethylmercuriomer-capto)benzoic acid sodium salt, Ethylmercurithiosalicylic acid sodium salt, Mercury-([o-carboxyphenyl]thio)ethyl sodium salt, Sodium ethylmercurithiosalicylate.

Contains	CAS No.	EC-No.	Index-No.	Content
Thimerosal	54-64-8	200-210-4	NA	<0.1%

4. First Aid Measures:

- **After inhalation:** Move person into fresh air. If not breathing, give artificial respiration. Consult a physician. Show this MSDS.
- **After skin contact:** Wash off with soap and plenty of water. Take victim immediately to a hospital. Consult a physician. Show this SDS.
- **After eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Show this MSDS.
- **After swallowing:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Call a physician. Show this SDS.
- **Most important symptoms and effects, both acute and delayed:** Unknown
- **Indication of any immediate medical attention and special treatment needed:** no data available

5. Fire Fighting Measures:

- **Suitable extinguishing agents:** Dry chemical, carbon dioxide, water spray or alcohol-resistant foam.
- **Special hazards arising from the substance or mixture:** Emits toxic fumes under fire conditions. Carbon oxides, Sulphur oxides, Sodium oxides, Mercury/Mercury oxides.
- **Protective equipment:** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
- **Further information:** Use water spray to cool unopened containers.

6. Accidental Release Measures:

- **Personal precautions, protective equipment and emergency procedures:** Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.
- **Environmental precautions:** Prevent further leakage or spillage is safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
- **Methods and materials for containment and cleaning up:** Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

7. Handling and Storage:

- **Precautions for safe handling:** Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition – No Smoking. Take measures to prevent the buildup of electrostatic charge.
- **Conditions for safe storage, including incompatibilities:** Store locked up. Store in a cool place. Keep container tightly closed in a dry and well ventilated place.

8. Exposure Controls and Personal Protection:

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- **Control parameters:** Thimerosal: NIOSH REL: C 0.1 mg/m³. STEL 0.03 mg/m³. TWA 0.01 mg/m³.
- **Appropriate engineering controls:** Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling product.
- **Personal Protective Equipment:**
- **Eye and Face Protection:** Tightly fitting safety goggles. Face shield (8-inch minimum).
- **Skin Protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
- **Body Protection:** Complete suit protection against chemicals, flame retardant antistatic protective clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- **Respiratory Protection:** Where risk assessment shows air-purifying respirators are appropriate use full-face respirator.

9. Physical and Chemical Properties:

- **Appearance:** Colorless Liquid.
- **Odor:** Odorless
- **Odor threshold:** Not available
- **pH:** Not available
- **Melting point/freezing point:** 453°F (234°C)
- **Boiling point/Boiling range:** Not available
- **Flash point:** 250°F (482°C)
- **Evaporation rate:** Not available
- **Flammability (solid, gas):** Not available
- **Upper/lower flammability or explosive limits:** Not available
- **Vapor density:** Not available
- **Vapor pressure:** Not available
- **Relative density:** 0.5 g/cm³
- **Solubility in/Miscibility with Water:** Soluble
- **Partition coefficient:** Not available
- **Auto igniting:** Not available
- **Decomposition temperature:** Not available
- **Viscosity:** Not available

10. Stability and Reactivity:

- **Reactivity:** Not available
- **Chemical Stability:** Light Sensitive
- **Possibility of hazardous reactions:** Not available
- **Conditions to avoid:** Heat, Flames, Strong acids and bases, Strong oxidizing agents.
- **Incompatible materials:** Aluminum, Reducing agents
- **Hazardous decomposition products:** Not available

11. Toxicological Information:

- **Acute toxicity:** Thimerosal: rat oral – LD50 = 75 mg/kg; rat subcutaneous – LD50 = 98 mg/kg.
- **Skin corrosion/irritation:** Can be absorbed through the skin
- **Serious eye damage/irritation:** Not available
- **Respiratory or skin sensitization:** Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.
- **Germ cell mutagenicity:** Not available.

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- **Carcinogenicity:** Not available
- **Reproductive toxicity:** Not available
- **Specific target organ toxicity (STOT) -single exposure:** Not available
- **Specific target organ toxicity (STOT) -repeated exposure:** Not available
- **Aspiration hazard:** Not available
- **Information on likely routes of exposure:** Routes of entry anticipated; oral, dermal, inhalation.
- **Symptoms related to the physical, chemical and toxicological characteristics:**
 - Inhalation:** Not available
 - Ingestion:** Not available.
 - Skin contact:** Not available
 - Eye contact:** Not available
- **Delayed and immediate effects and also chronic effects from short and long term exposure:** Long term exposure leads to disorders/damage of the nervous system.

12. Ecological Information:

- **Ecotoxicity:** Thimerosal – LC50 – Oncorhynchus mykiss (rainbow trout) – 21.2 mg/l – 48.0h.
- **Biodegradability:** Not available
- **Bioaccumulative potential:** Not available
- **Mobility in soil:** Not available
- **Other adverse effects:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life.

13. Disposal Considerations:

- **Disposal methods:** Dispose of waste in accordance to applicable national, regional, or local regulations. Contact a licensed professional waste disposal service to dispose of this material.
 - **Contaminated packaging:** Dispose in the same manner as unused product.

14. Transportation Information:

ADR/RID ADN/ADNR IMDG IATA/DOT

ADR/DOT/:	UN Number:	UN 2025
RID	Proper Shipping Name:	Mercury compounds, solid, N.O.S. (Thimerosal)
	Hazard class:	6.1
	Packing group:	III
IATA:	UN Number:	UN 2025
	Proper Shipping Name:	Mercury compounds, solid, N.O.S. (Thimerosal)
	Hazard class:	6.1
	Packing group:	III
IMDG:	UN Number:	UN 2025
	Proper Shipping Name:	Mercury compounds, solid, N.O.S. (Thimerosal)
	Hazard class:	6.1
	Packing group:	III
	Marine Pollutant:	No

15. Regulations:

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- **US Federal and State Regulations**
- **CERCLA/SARA 302:** Thimerosal is not listed.
- **CERCLA/SARA 304:** Thimerosal is not listed.
- **SARA 313:** Thimerosal is not listed.
- **TSCA (Toxic Substances Control Act):** Thimerosal is not listed.
- **California Proposition 65:**  **WARNING:** This product can expose you to chemicals including mercury, which is known to the State of California to cause reproductive toxicity with developmental effects. For more information, go to WWW.P65Warnings.ca.gov.

16. Other Information:

- **Notice to reader:** To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.