

Effective date: 02/06/2026	Hy-Labs Cat. No: BP519	MSDS FORMAT MATERIAL SAFETY DATA SHEET	hylabs Replace Doc: NA
Doc. No: MSDS-BP519			

1- Product and Company Identification

Product Name	TRIS 1M PH=8.0, 500 ML
Reference number	BP519/500D
Identified uses	Laboratory reagent, buffer solution for microbiological, molecular biology, biochemical, and analytical applications.
Manufacturer	Hy-Laboratories Ltd. Park Tamar, Rehovot, 76326, Israel Tel: 972-8-9366475 Fax: 972-8-9366474

2- HAZARDS IDENTIFICATION

<p>GHS Classification</p> <ul style="list-style-type: none"> • Skin Irritation: Category 2 (Causes skin irritation) • Eye Irritation: Category 2A (Causes serious eye irritation) <p>GHS Label Elements</p> <ul style="list-style-type: none"> • Signal Word: WARNING • Hazard Statements: <ul style="list-style-type: none"> ○ H315: Causes skin irritation. ○ H319: Causes serious eye irritation. • Precautionary Statements: <ul style="list-style-type: none"> ○ P264: Wash skin thoroughly after handling. ○ P280: Wear protective gloves, eye protection, and face protection. ○ P302 + P352: IF ON SKIN: Wash with plenty of soap and water. ○ P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. ○ P332 + P313: If skin irritation occurs: Get medical advice/attention. ○ P337 + P313: If eye irritation persists: Get medical advice/attention. ○ P362: Take off contaminated clothing and wash before reuse.


3- COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient Name	CAS Number	EC Number	Concentration
Water (Deionized/Distilled)	7732-18-5	231-791-2	~85 - 90% w/v
Tris Base (<i>Tris(hydroxymethyl)aminomethane</i>)	77-86-1	201-064-4	12.11% w/v (1.0 M)
Hydrochloric Acid (<i>as active $(H^+) / \backslash(Cl^-)$ ions</i>)	7647-01-0	231-595-7	~1.5% w/v (~0.5 M)

The hydrochloric acid is reacted with Tris Base to form a Tris-HCl buffer system.

4- First Aid Measures

<p>Eye Contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.</p> <p>Skin Contact Wash off immediately with plenty of soap and water for at least 15 minutes. Remove contaminated clothing. Seek medical attention if irritation persists.</p> <p>Inhalation Move affected person to fresh air. If not breathing, give artificial respiration. Seek medical attention if symptoms develop.</p> <p>Ingestion Rinse mouth with water. Do not induce vomiting. Seek medical advice if discomfort occurs.</p>

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5- Fire Fighting Measures

Suitable Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
Use extinguishing media appropriate for surrounding materials.

Specific Hazards

The product is water-based and non-flammable.

Hazardous Combustion Products

Decomposes in a fire to emit toxic fumes including nitrogen oxides (NO_x), carbon oxides (CO, CO₂), and hydrogen chloride gas (HCl).

Protective Equipment

Wear self-contained breathing apparatus (SCBA) and full protective gear for firefighting if necessary.

6- Accidental Release Measures

Personal Precautions

Use personal protective equipment (PPE). Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains or waterways.

Cleanup Methods

Soak up with inert absorbent material (e.g., sand, silica gel, acid binder). Neutralize carefully with a weak base if necessary. Collect in suitable, closed containers for disposal.
Absorb with inert material and collect in suitable containers. Wash spill area with water.

7- Handling and Storage

Handling

- Follow good laboratory practices.
- Avoid contact with eyes and skin.
- Avoid inhalation of vapor or mist.
- Wear appropriate personal protective equipment.
- Wash thoroughly after handling.
- Do not ingest.

Storage

- Keep container tightly closed in a dry, cool, and well-ventilated place. Store away from strong oxidizing agents and strong bases.
- Recommended storage temperature: 15–25°C unless otherwise validated.
- Protect from contamination.
- Avoid extreme temperatures.


8- Exposure Controls, Personal Protection

Exposure Limits

- **Tris Base:** Contains no substances with occupational exposure limit values.
- **Hydrochloric Acid:** ACGIH TLV: Ceiling 2 ppm; OSHA PEL: Ceiling 5 ppm (7mg/m³). *Note: The acid is bound and diluted in this neutral mixture, significantly lowering vapor risk.*

Personal Protective Equipment (PPE)

- **Eye/Face Protection:** Tightly fitting safety goggles or a face shield conforming to EN166 / ANSI Z87.1.
- **Skin Protection:** Handle with chemical-resistant gloves (Nitrile, Neoprene, or Latex). Inspect gloves prior to use.
- **Body Protection:** Complete suit or standard laboratory coat protecting against chemicals.
- **Respiratory Protection:** Not required under normal handling conditions. Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with multi-purpose combination

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cartridges.

Engineering Controls

- Use standard laboratory ventilation.

9- Physical and Chemical Properties

Property	Value
Appearance	Clear, colorless liquid
Odor	Odorless (fuming properties are lost upon neutralization)
pH	Approximately 7.9 - 8.1
Solubility	Completely miscible with water
Boiling Point	Similar to water ~100°C
Flash Point	Not applicable
Flammability	Non-flammable
Density	~1.05 g/cm ³
Melting/Freezing Point:	~0°C

10- Stability and Reactivity

Stability
Stable under recommended storage conditions. Stable under standard ambient handling temperatures.

Reactivity
No hazardous reactions expected under normal use.

Conditions to Avoid
Extreme temperatures and contamination.

Incompatible Materials
Strong oxidizing agents, strong acids, and strong bases, aluminium, copper.

Hazardous Decomposition Products
Formed under fire conditions: Nitrogen oxides, carbon oxides, and hydrogen chloride under extreme heating.

11- Toxicological Information

Acute Toxicity
(Tris Base): Oral LD50 (Rat): >5,000 mg/kg.
(Hydrochloric Acid): Diluted and neutralized state reduces systemic toxicity drastically compared to the fuming raw material.

Skin Corrosion/Irritation
May cause mild irritation.

Serious Eye Damage/Irritation
May Cause serious eye irritation.

Sensitization
No known sensitizing effects.


Carcinogenicity
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by IARC, NTP, or OSHA.

12- Ecological Information

Ecotoxicity
No data available for this specific mixture. Tris buffer components are generally expected to exhibit low aquatic toxicity.

Persistence and Degradability
Expected to be biodegradable or environmentally benign at use concentrations.

Bioaccumulative Potential

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Not expected to bioaccumulate.
Mobility in Soil
 High mobility in soil due to water solubility.

13- Disposal Information

Waste Treatment

Dispose of contents and containers in accordance with local, regional, and national regulations.
 Small laboratory quantities may typically be disposed of through approved laboratory waste procedures.

Contaminated Packaging

Dispose of as unused product.

14- Transport Information

UN Number

Not regulated.

Proper Shipping Name

Not regulated as dangerous goods.

Hazard Class

Not applicable.

Packing Group

Not applicable.

DOT (US): Not dangerous goods / Not regulated

IMDG (Sea): Not dangerous goods / Not regulated

IATA (Air): Not dangerous goods / Not regulated

15- Regulatory Information

This product is not expected to require hazard labeling under GHS when prepared as a neutralized Tris-HCl buffer solution. Users should verify compliance with applicable local regulations.

TSCA (Toxic Substances Control Act): All chemical components are listed on the TSCA Inventory.

SARA 302/313: No chemicals in this material are subject to the reporting requirements.

16- Other Information

For In-Vitro use only.

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

The information in this MSDS is based on current and reliable sources but does not purport to be all inclusive and shall be used only as a guide.

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

This information cannot be considered a guarantee of the properties of the product; it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products.

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.