

PRODUCT INFORMATION

Product Type: TUBES

Cat No. TT373 - PHOSPHATE BUFFER PH 6.8, 35ML

Intended Use:

Phosphate Buffer Solution is intended for use as a laboratory buffering solution in microbiological, biochemical, molecular biology, and analytical procedures where a stable aqueous environment at approximately pH 6.8 is required.

The product is intended for laboratory and research use only.

For laboratory use only.

Principle and Uses

Phosphate Buffer Solution is based on the buffering capacity of the dihydrogen phosphate/hydrogen phosphate conjugate acid-base system.

The combination of: Potassium dihydrogen phosphate (KH_2PO_4), and Disodium hydrogen phosphate dihydrate ($\text{Na}_2\text{HPO}_4 \cdot 2\text{H}_2\text{O}$) provides resistance to changes in pH when small amounts of acids or bases are introduced into the solution.

The buffer may be used for:

- Preparation and dilution of laboratory reagents
- Microbiological procedures
- Biochemical and enzymatic applications
- Molecular biology procedures
- Sample preparation
- Washing and rinsing procedures
- Preparation of working solutions
- General laboratory applications requiring a phosphate buffer at approximately pH 6.8

Limitations

- **Not for In Vivo Use:** This product is formulated strictly for in vitro laboratory and analytical procedures and is not intended for human or animal diagnostic or therapeutic applications.
- **The buffer capacity is limited;** addition of excessive amounts of strong acids or bases may significantly alter the pH.
- **Temperature Dependency:** The pH value of phosphate buffers varies slightly with temperature fluctuations.
- **Contamination Risk:** This solution contains no antimicrobial preservatives. It is highly susceptible to microbial growth once opened; store and handle under aseptic conditions.
- **Precipitation:** Phosphate ions can react and form insoluble precipitates with certain polyvalent cations (such as calcium or magnesium). Do not use this buffer with incompatible metal ions.
- The product should not be used beyond its validated shelf life or outside its specified storage conditions.
- Suitability for a specific analytical, microbiological, molecular biology, or diagnostic application should be established by the user before use.

Composition:

Potassium Dihydrogen Phosphate (KH_2PO_4) - 2.27 g/L

Disodium Hydrogen Phosphate Dihydrate ($\text{Na}_2\text{HPO}_4 \cdot 2\text{H}_2\text{O}$) - 2.97 g/L

Storage: 15-25°C

pH: 6.75 - 6.85

Appearance: Clear, colorless solution

Exp. Date: Printed on label and on the item.

Required materials not supplied: Laboratory equipment as required.

Warning and Precautions:

Warning and Precautions - For professional use only. Follow good microbiological lab practices while handling specimens and culture. Do not use Tubes / Bottles if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration. Avoid freezing and overheating. After use and prior to discarding, specimen containers and all contaminated material, including the used culture media and contaminated culture containers, must be sterilized or incinerated by validated procedures.

Waste Disposal

After interpretation all items should be destroyed by standard incineration methods.
