



Sterile Phosphate Buffered Saline solution, pH 7.0

R039

Intended use

Sterile Phosphate Buffered Saline Solution, pH 7.0 is used as general diluent and, suspending fluid. It is also commonly used in biological research. It helps to maintain a constant pH and ion concentrations of the solutions.

Composition**

Ingredients

Sodium dihydrogen orthophosphate	5.35 g
Di-sodium hydrogen phosphate anhydrous	23.55 g
Sodium chloride	40.00 g
Distilled water	1,000.0 ml

**Formula adjusted, standardized to suit performance parameters

Directions

1. Sterile Phosphate Buffered Saline Solution has wide range of application so follow appropriate direction as per application protocol.

Principle And Interpretation

Phosphate buffered saline solution (abbreviated PBS) is a non-toxic solution commonly used in biological research and in many biological laboratories. It is a water-based salt solution containing disodium hydrogen phosphate, sodium chloride. Unlike water, PBS prevents cells rupturing or shriveling up due to osmosis. Phosphate buffered saline is a balanced salt solution used for a variety of cell culture applications, such as washing cells before dissociation, transporting cells or tissue, diluting cells for counting, and preparing reagents. It is also having application in maintaining pH and ion concentrations of the solutions.

Type of specimen

Biological sample

Specimen Collection and Handling

1. Follow appropriate techniques for handling specimens as per established guidelines

Warning and Precautions

Non in Vitro diagnostic use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

1. phosphate and pyrophosphate buffers are unsuitable if a solution contains calcium or certain other di and trivalent cations which form insoluble phosphates, or if reaction progress is to be followed by the change in phosphate content.

2. Buffers usually work well at a pH close to the pKa value. If too much acid is added to the buffer, or if the concentration is too strong, extra protons remain free and the pH will fall sharply. This is reflected in the titration curve and is known as the buffer capacity.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature

Quality Control

- **Appearance** : Colourless clear solution.
- **Clarity** : Clear with no insoluble particles.
- **Reaction** : Reaction of the solution at 25°C. pH :7.0±0.2
- **Sterility Testings** : Sterility of sterile phosphate buffered saline was checked by incubating at 30-35°C for bacteria and at 20-25°C for fungi up to 14 days.
- **Results** : Absence of any turbidity after upto 14 days at 30-35°C and for fungi at 20-25°C.

Storage and Shelf Life

Store between 10-30°C in tightly closed container and away from bright light. Use before expiry date on label. On opening, product should be properly stored in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques.

Reference

1. Delloyd's Lab Tech resources reagent and solution: Preparation of pH buffer solutions.



Storage temperature



Do not use if package is damaged



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Disclaimer :

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