



Acetate Buffer, pH 5.6

R040

Intended use

Acetate Buffer, pH 5.6 is used to establish and maintain an ion activity within narrow range. It is most commonly used to establish hydrogen-ion activity for the calibration of pH meters, in analytical procedures. It is also used to maintain stability of various dosage forms.

Composition**

Ingredients

Sodium acetate anhydrous	7.44 gm
Glacial acetic acid	0.60 ml
Distilled water	992.0 ml

**Formula adjusted, standardized to suit performance parameters

Directions

1. Adjust solution to final desired pH by adding Acetate Buffer dropwise.

Principle And Interpretation

Buffer is defined as a solution which resists changes in the activity of an ion on addition of substances that are expected to change the activity of that ion. Buffer capacity refers to the amount of material that may be added to solution without causing a significant change in ion activity. Buffered solutions are systems in which the ion is in equilibrium with substances capable of removing or releasing the ion. For successful completion of many pharmacopeia tests and assay requires adjustment or maintenance of a specified pH by addition of buffer solutions. In pH measurements standard buffer solutions are required for reference purposes.

Type of specimen

Samples for hydrogen-ion activity

Specimen Collection and Handling

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. Precipitates more likely to occur during fixation. Tends to form precipitates in presence of calcium ions. Precipitates uranyl acetate and tends to react with lead salts.
2. Becomes slowly contaminated with micro-organisms.

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.
- **Results** : The buffer solution gives a pH value of 5.6 ± 0.02 at 25°C

Storage and Shelf Life

On receipt store between $10\text{-}30^{\circ}\text{C}$ 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. U.S. Pharmacopeia USP 42, NF37 vol 4.
2. Delloyd's Lab Tech resources reagent and solution: Preparation of pH buffer solutions.
3. Lapage S., Shelton J. and Mitchell T., 1970, Methods in Microbiology', Norris J. and Ribbons D., (Eds.), Vol. 3A, Academic Press, London.
4. MacFaddin J. F., 2000, Biochemical Tests for Identification of Medical Bacteria, 3rd Ed., Lippincott, Williams and Wilkins, Baltimore.



Storage temperature



Do not use if package is damaged



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Revision : 02/2022

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