



Phosphate Buffer, APHA, pH 7.2

M461

Phosphate Buffer, APHA, pH 7.2 is used for the preparation of dilution, blanks for the examination of waters, dairy products, foods, eating utensils and other specimens.

Composition**

Ingredients	Gms / Litre
Monopotassium phosphate	26.220
Sodium carbonate	7.780
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Dissolve 34 grams in 1000 ml distilled water. Dispense and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. The pH after autoclaving and cooling to room temperature should be 7.2 ± 0.2.

Principle And Interpretation

Phosphate Buffer, APHA, pH 7.2 is prepared as recommended by APHA. It is used as a diluent in the examination of water, dairy products, foods and other specimens. Phosphate Buffer, APHA, pH 7.2 is also recommended for use with the addition of magnesium chloride (1, 2). As per APHA and FDA (3, 4), this medium is also referred to as Butterfields Buffered Phosphate Diluent and is mentioned without Magnesium chloride.

Phosphate buffer is preferred over unbuffered water in order to standardize the wide variation in the pH of distilled water from various sources.

Quality Control

Appearance

White to cream homogeneous free flowing powder

Colour and Clarity of prepared medium

Colourless clear solution without any precipitate

Reaction

Reaction of 3.4% w/v aqueous solution at 25°C. pH : 7.2±0.2

pH

7.00-7.40

Storage and Shelf Life

Store below 30°C and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Reference

1. Eaton A. D., Clesceri L. S. and Greenberg A. W., (Eds.), 2005, Standard Methods for the Examination of Water and Wastewater, 21st Ed., APHA, Washington, D.C.
2. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.
3. Downes F. P. and Ito K., (Ed.). 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., American Public Health Association, Washington, D.C.
4. FDA Bacteriological Analytical Manual, 2005, 18th Ed., AOAC, Washington, DC.

Revision : 2 / 2015

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