

Buffered Peptone Water

Catalog :HB4084-5

Buffered Peptone Water is used for pre-enrichment of *Salmonella* and *Listeria*.

Approximate Formula:

Ingredients	gm/liter
Peptic digest of animal tissue	10.0
Sodium chloride	5.0
Disodium phosphate	3.5
Monopotassium phosphate	1.5

Final pH7.2±0.2 at 25 °C

*Adjusted and/or supplemented as required to meet performance criteria.

Directions:

Suspend 20.0g of the medium in one liter of deionized or distilled water. Heat to completely dissolved. Sterilize in an autoclave at 121 °C (15 lbs.) for 15 minutes.

Principle and Interpretation:

Peptic digest of animal tissue provides carbon and nitrogen sources to meet the needs of bacterial growth. Sodium chloride can maintain the equilibrium osmotic pressure; Potassium dihydrogen phosphate and disodium hydrogen phosphate are buffer agents.

Appearance:

Dehydrated medium is a free-flowing yellowish powder. The prepared medium is a kind of yellowish transparent liquid.

Precautions:

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

Storage conditions and Shelf life:

Buffered Peptone Water must be stored tightly capped in the original container at 5-30 °C. The dehydrated medium has a shelf life of 5 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8 °C.

Quality control:

Prepare the culture medium as per label directions. Inoculate and incubate at 36±1 °C for 18-24 h.

Microorganism	Strains Number	Inoculum (CFU)	Growth	Remarks
<i>Listeria monocytogenes</i>	ATCC 19114	10-100	Luxuriant	Turbid
<i>Salmonella typhimurium</i>	ATCC14028	10-100	Luxuriant	Turbid
<i>Enterobacter sakazakii</i>	ATCC 29544	10-100	Luxuriant	Turbid

References:

- Edel and Kampelmacher. 1973. Bull. W.H.O. 48:167.
- Angelotti. 1963. Microbiological quality of foods. Academic Press, New York, N.Y.
- Andrews, Flowers, Silliker and Bailey. 2001. In Downes and Ito (ed.), Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington, D.C.
- Rose. 2001. Isolation and identification of *Salmonella* from meat, poultry and egg products. In Microbiology laboratory guidebook, 3rd ed., Food Safety and Inspection Service, U.S. Department of Agriculture, Washington, D.C.
- International Organization for Standards (ISO). Microbiology of food and animal feeding stuffs – horizontal method for the detection of *Salmonella* spp., 4th ed., ISO 6579:2002.