

Buffered Saline Peptone Water

Cat. 1406

Recommended as a primary solvent for serial dilution.

Practical information

| | |
|--------------|-------------|
| Applications | Categories |
| Diluent | General use |

Industry: General cultivation

Principles and uses

Buffered Saline Peptone Water is a non inhibited medium, therefore allowing an easy recovery of stressed microorganisms. Buffered Saline Peptone Water is rich in nutrients and produces a high recovery of damaged cells and intensifies the growth of microorganisms. A feature common to all selective media is that sublethally injured organisms are not generally detected and therefore a recovery step must be included in examination procedures.

Changes in pH may damage bacteria growth. Buffered Saline Peptone Water maintains a high pH via the phosphate buffer system and allows the repair of injured cells which are sensitive to low pH. Casein peptone provides nitrogen, vitamins, minerals and amino acids essential for growth. Sodium chloride supplies essential electrolytes for transport and osmotic balance.

Formula in g/L

| | | | |
|-----------------|-----|--------------------|-------|
| Casein peptone | 1 | Disodium phosphate | 0,044 |
| Sodium chloride | 8,5 | Sodium phosphate | 0,023 |

Preparation

Suspend 9,57 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Dispense into appropriate containers and sterilize at 121 °C for 15 minutes.

Instructions for use

Refer to the relevant references for details on test methods. Inoculate the tubes with the test sample.

- Incubate tubes at 35±2 °C for 18-24 hours under aerobic conditions, or as indicated in the references.

Quality control

| Solubility | Appearance | Color of the dehydrated medium | Color of the prepared medium | Final pH (25°C) |
|------------|-------------|--------------------------------|------------------------------|-----------------|
| w/o rests | Fine powder | Very light beige | Colorless | 7,0±0,2 |

Microbiological test

Incubation conditions: (35±2 °C / 18-24 h).

| Microrganisms | Specification |
|-----------------------------------|---------------|
| Salmonella typhimurium ATCC 14028 | Good growth |
| Escherichia coli ATCC 25922 | Good growth |
| Staphylococcus aureus ATCC 25923 | Good growth |

Storage

Temp. Min.:2 °C
Temp. Max.:25 °C

Bibliography

Standard Methods for the Examination of Water and Wasterwater 15a edition, 1980

Juven, Cox Baltet, Rhomson, Charles and Schutze. 1984. J. Food Prot. 47:299

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