Peptone Saline Solution – Maximum Recovery Diluent (i23675)

Useful as diluent for different test methods.

Industry: General

Principles & Uses

Peptone Saline solution, also known as Maximum Recovery Diluent, compliant with ISO standards and food regulations, play crucial roles in microbiological examinations. Peptone Saline Solution, an isotonic solution, serves as an alternative to RINGER solution, facilitating the recovery of organisms from diverse sources. It combines the protective effect of peptone with osmotic support, preventing organism multiplication shortly after sample dilution.

Peptone serves as a nutrient source, while sodium chloride maintains osmotic balance. This medium finds application in carbohydrate fermentation tests for food and environmental studies.

Peptone Saline Solution With a near-neutral pH, it's an effective diluent for accurate sample dilution, essential in standard examination methods. The dilution process involves specific steps, including blending and sequential dilutions, with subsequent subcultures for organism counting.

Composition (gr/L)

Peptone from Casein 1 g, Sodium chloride 8.5 g.

Final pH at 25°C 7.0 ± 0.2

Preparation from dehydrated Powder

Dissolve 9.5 g of the medium in one liter of distilled water. Autoclave at 121°C for 15 minutes.

Quality Control

Dehydrated Appearance: Light yellow, free flowing, homogeneous.

Prepared Appearance: Light yellow and clear.

Reaction of 0.95% Solution at 25°C: pH 7.0 ± 0.2

Cultural Response

Cultural characteristics observed on Soybean Casein Digest Agar, after an incubation at 35 - 37°C for 18 - 48 hours of cultures suspended in 0.1% Peptone Salt solution for 30 minutes.

Organism (ATCC*)	Inoculum (CFU)	Recovery (after 30 min)
Staphylococcus aureus (25923)	50-100	No change in numbers
Escherichia coli (25922)	50-100	No change in numbers

*ATCC is a registered trade mark of the American Type Culture Collection.

Escherichia coli (left). Prepared Culture Medium (right).

Storage

Keep the container at 15-30 °C. Store prepared medium at 2-8 °C.