CM 22045 - BUFFERED PEPTONE WATER
(ISO 6579-1:2017, 11133:2014, 11290-2:2017, 21528:2017, 6887-1/2/3/4:2017)

INTENDED USE
Forpreenrichment of injured Salmonella species prior to selective enrichment and isolation.

PRODUCT SUMMARY AND EXPLANATION
Buffered PeptoneWater is a non-selective pre-enrichment medium for the isolation for the Salmonella species from food and associated samples. The medium isdesigned to be used prior to selective enrichment. As Salmonella may be present in low number or sub-lethally injuredpre-enrichment allows cells time to repair and multiply before being introduced to selective culture, thereby improving the chances of recovery from sample. The composition and performance criteria of this medium are as per the applications laid down in ISO 6579-2002, whereas the quality control of Buffered peptone water includes testing in accordance with ISO 6579:2017 and ISO 11133-2014.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	10.000
Sodium chloride	5.000
Disodium hydrogen phosphate (anhydrous)	3.500
Potassium dihydrogen phosphate	1.500

PRINCIPLE

The media contains Peptone as a source of carbon, nitrogen, vitamins and minerals. Sodium chloride maintains the osmotic balance and phosphates buffer the medium. The broth is rich in nutrients and produces high resuscitation rates for sub lethally injured bacteria and supports intense growth. The phosphate buffer system prevents bacterial damage due to changes in the pH of the medium.

The sample is added to Buffered Peptone Water (ISO) at a ratio of 1:10, and incubated at 36 ± 2°C for 16-20 hours before transfer to selectiveenrichment media.

INSTRUCTION FOR USE
Dissolve 20.00 grams in 1000ml distilled water.
Gently heat to boiling with gentle swirling and dissolve the medium completely.
Distribute 50 ml amount into each flask or as desired.
Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.
Cool at room temperature prior to use.

QUALITY CONTROL SPECIFICATIONS

Appearance of Dehydratedpowder	:	Cream to yellow colour, Homogeneous free flowing powder
Appearance of Prepared medium	:	Light yellow coloured, clear solution without any precipitate
pH (at 25°C)	:	7.0± 0.2

INTERPRETATION
Culturalcharacteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Salmonella enteritidis	13076	50-100	Luxuriant	>=50%	36±2°C	16-20 Hours
Salmonella typhi	6539	50-100	Luxuriant	>=50%	36±2°C	16-20 Hours
Salmonella typhimurium	14028	50-100	Luxuriant	>=50%	36±2°C	16-20 Hours
Escherichia coli	25922	50-100	Luxuriant	>=50%	36±2°C	16-20 Hours
Escherichia coli	8739	50-100	Luxuriant	>=50%	36±2°C	16-20 Hours

*Uninoculated medium = No change (Negative control)

PACKAGING

In100&500gm packaging size.

STORAGE

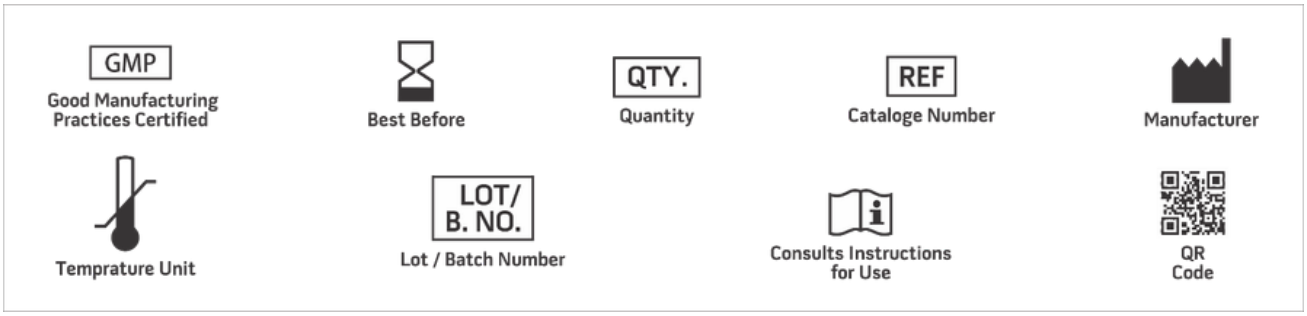
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use, if powder show evidence of microbial contamination, discoloration, drying, or other signs of deterioration.

DISPOSAL

Afteruse,prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Angelotti, Academic Press, New York, N.Y. (1963).
2. Edel and Kampelmacher, Normative UNE-EN ISO 6579. Microbiology of food stuff for humans and animals. Horizontal method to detect Salmonella spp. Bull. W.H.O., 48:167. (1973).
3. M.R. Pascual Anderson. Techniques for Microbiological Analysis of Foods and Drinks, CeNAN. (1982).
4. Juven, Cox, Bailey, Thomson, Charles and Schutze, J. Food Prot., 47:299. (1984).
5. Sadovski, J. Food Technol., 12:85. (1977)
6. International Organisation for Satndardization (ISO), Draft ISO/ DIS. 6579. (1993).
7. ISO 6579-1:2017 Microbiology of the food chain -- Horizontal method for the detection, enumeration and serotyping of Salmonella -- Part 1: Detection of Salmonella spp.
8. ISO 11133:2014 Microbiology of food, animal feed and water - Preparation, production, storage and performance testing of culture media.
.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

*ForLab UseOnly