

B955	BUFFERED PEPTONE WATER W/NACL		
Formula			
Ingredients :		gms/lit.	
Proteose peptone		1.00	
Sodium chloride		4.30	
Disodium hydrogen phosphate		7.23	
Potassium dihydrogen phosphate		3.56	
Final pH (at 25°C) : 7.0 ± 0.2			
Directions :			
Suspend 16.09 gms. in 1000 ml. distilled water. Heat if necessary to dissolve the medium. Add 0.1 to 1% w/v polysorbate 20 or 80 if desired. Dispense in tube or flasks and Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.			
Principle :			
Buffered Peptone Water is a pre-enrichment medium designed to help recovery of sub-lethally damaged Salmonellae before transfer to a selective medium. This pre-enrichment medium is free from inhibitors and is well buffered and provides conditions for resuscitation of the cells that have been injured by processes of food preservation. Pre-enrichment in Buffered Peptone Water at 37°C for 18 hours before selection in Tetrathionate Brilliant Green Bile Broth (B084) showed superior results compared with direct selection method. The composition of Buffered Peptone Water with NaCl medium is as per IP and EP specifications recommended to dilute the sample for microbial examination (5, 6). Depending on the amount of fat in the sample to examine the kind and quantity of emulsifying agent to be used. These pre-enrichment media contain 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. Inoculate 10 grams specimen in 50 ml of these media and incubate at 35-37°C for 18 hours. Transfer 10 ml from this medium to 100 ml of Tetrathionate Broth (B027) and incubate at 43°C for 24 - 48 hours and then subculture on selective plating media. Examine the plates for characteristic Salmonella.			
QC Tests - (I) Dehydrated Medium			
Colour :	White to Cream		
Appearance :	Homogeneous Free Flowing powder		
(II) Rehydrated medium			
pH (post autoclaving/heating) :	7.0 ± 0.2		
Colour (post autoclaving/heating) :	Colorless		
Clarity (post autoclaving/heating) :	Clear		
(III) Q.C. Test Microbiological			
Cultural characteristics observed after recovery on Soyabean casein digest agar after an incubation at 30-35°C for 18 -24 hrs for bacteria and Saboraud Dextrose agar at 30-35°C for 24-48 hours.			
MICROORGANISM (ATCC)	RECOVERY WITHIN 2 HOURS OF INCUBATION	RECOVERY WITHIN 4 HOURS OF INCUBATION	RECOVERY WITHIN 24 HOURS OF INCUBATION
Salmonella typhimuriam (14028)	No decrease in colony count	No decrease in colony count	No decrease in colony count (stored at 2-8°C)
Salmonella abony (NCTC 6017)	No decrease in colony count	No decrease in colony count	No decrease in colony count (stored at 2-8°C)
Staphylococcus aureus (25923)	No decrease in colony count	No decrease in colony count	No decrease in colony count (stored at 2-8°C)
Staphylococcus aureus (6538)	No decrease in colony count	No decrease in colony count	No decrease in colony count (stored at 2-8°C)
Escherichia coli (25922)	No decrease in colony count	No decrease in colony count	No decrease in colony count (stored at 2-8°C)
Escherichia coli (8739)	No decrease in colony count	No decrease in colony count	No decrease in colony count (stored at 2-8°C)
Escherichia coli NCTC 9002	No decrease in colony count	No decrease in colony count	No decrease in colony count (stored at 2-8°C)
Pseudomonas aeruginosa (9027)	No decrease in colony count	No decrease in colony count	No decrease in colony count (stored at 2-8°C)
Pseudomonas aeruginosa (27853)	No decrease in colony count	No decrease in colony count	No decrease in colony count (stored at 2-8°C)
Bacillus subtilis subsp. spizizenii (6633)	No decrease in colony count	No decrease in colony count	No decrease in colony count (stored at 2-8°C)
Micrococcus luteus (9341)	No decrease in colony count	No decrease in colony count	No decrease in colony count (stored at 2-8°C)

TECHNICAL SHEET

Precautions :	1. For Laboratory Use.				
	2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.				
	3. May be Irritating to eyes, respiratory system and skin. Avoid contact with skin and eyes. Do not breathe dust. Wear suitable protective clothing. Keep container tightly closed.				
Limitations :	1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.				
	2. The types and numbers of competing flora in the test sample can affect recovery and may overgrow salmonellae.				
Use :	Recommended as a diluent for carrying microbial limit test from clinical and non clinical specimens.				
Storage :	Dehydrated medium- below 30°C Prepared medium- Between 2 to 8°C.				
Packing :	500 gm. bottle				
Product profile:	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
B955	16.09g/l	31.075L	7.0 ± 0.2	0.1 to 1% w/v polysorbate 20 or 80	121°C / 15 minutes

Disclaimer:

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related BIOMARKLABORATORIES publications.

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