



## Buffered Peptone Water

Diluent and non-selective pre-enrichment liquid medium for microbiological examination of food, according to ISO 6887, 11290, 21528 and 6579.

### DESCRIPTION

Buffered Peptone Water (BPW) is a liquid medium recommended by ISO 6579 for increasing the recovery of injured *Salmonella* spp. from food and associated samples prior to selective enrichment and isolation.

According to ISO 21528, BPW is used for detection or enumeration of Enterobacteriaceae within foodstuffs.

Used as diluent, BPW complies with ISO 6887 and 11290 for the enumeration of organisms.

### TYPICAL FORMULA (g/l)

Enzymatic Digest of Casein	10.0
Sodium Chloride	5.0
Disodium Hydrogen Phosphate	3.5*
Potassium Dihydrogen Phosphate	1.5

Final pH 7.0 ± 0.2 at 25°C

\*Equivalent to 9.0 g of disodium hydrogen phosphate dodecahydrate.

Formula may be adjusted and/or supplemented as required to meet performance specifications;  
Grams per litre of purified water.

### METHOD PRINCIPLE

Enzymatic digest of casein, provides amino acids, nitrogen, carbon and minerals. Sodium chloride maintains the osmotic balance of the medium. Phosphates are the buffering agents.

### PREPARATION

Dehydrated medium      Suspend 20.0 g of the powder in 1 liter of distilled or deionized water. Mix well. Heat to boil shaking frequently until completely dissolved. Sterilize in autoclave at 121°C for 15 min.

### TEST PROCEDURE

Suspend the sample in BPW to make dilutions as required.

For pre-enrichment, add sample to BPW at a ratio of 1:10 or 1:9 depending on the method being used. Incubate at 37 ± 1°C for 16-20 hours before transfer to selective enrichment media.

### INTERPRETING RESULTS

Turbidity indicates microbial growth.

### STORAGE

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed. Store bottles and tubes at 10-25°C away from light. Do not use the product beyond its expiry date on the label or if product shows any evidence of contamination or any sign of deterioration.

### SHELF LIFE

Dehydrated medium: 4 years.

Prepared medium: 2 years.

## QUALITY CONTROL

**Appearance of dehydrated medium:** Free-flowing, homogeneous, light beige.

**Appearance of prepared medium:** Clear, light amber.

**Expected cultural response:**

Control strain	WDCM	Inoculum	Incubation	Specification
<i>Escherichia coli</i>	WDCM 00012	10 <sup>3</sup> -10 <sup>4</sup> CFU	45 min - 1 h 18-27°C	± 30% colonies of original count
<i>Staphylococcus aureus</i>	WDCM 00034			
<i>Listeria monocytogenes 4b</i>	WDCM 00021			
<i>Salmonella</i> Typhimurium	WDCM 00031	≤ 100 CFU	18 ± 2 h/ 37 ± 1°C	Good growth/turbidity of the medium
<i>Salmonella</i> Enteritidis	WDCM 00030			
<i>Escherichia coli</i>	WDCM 00012			

Please refer to the actual batch related Certificate of Analysis (CoA).

## WARNING AND PRECAUTIONS

**For professional use only.** Operators must be trained and have certain experience. Please read the instructions carefully before using this product. Reliability of assay results cannot be guaranteed if there are any deviations from the instructions in this document.

Consult the Safety Data Sheet (SDS) for information regarding hazards and safe handling practices.

## DISPOSAL OF WASTE

Disposal of waste must be carried out according to national and local regulations in force.

## BIBLIOGRAPHY

See the references at the end of this document.

## TABLE OF SYMBOLS

See the table of symbols at the end of this document.

**The product is available in the configurations listed below.** There may be additional product ref. numbers as well. For an updated listing of available products, visit [liofilchem.com](http://liofilchem.com)

Product	Format	Packaging	Ref.
Buffered Peptone Water	20x100mm Tube	20 x 9 ml	24199
		100 x 9 ml	26199
		20 x 10 ml	24099
	16x100mm Plastic Tube	100 x 9 ml	26199P
	Bottle	6 x 90 ml	414030
		25 x 90 ml	454030
		6 x 200 ml	412090
		6 x 225 ml	414020
		25 x 225 ml	451402
	Bag	3 x 3 l	499030
		3 x 5 l	499035
	Dehydrated medium	100 g	621014
		500 g	611014
5 kg		6110145	
Buffered Peptone Water (Double Concentration)	20x100mm Tube	20 x 9 ml	24463
	Bottle	6 x 225 ml	414170