

## BAGGYWEL - BUFFERED PEPTONE WATER

### INTENDED USE

Buffered Peptone Water is a pre-enrichment medium used for sample preparation from foods prior to selective enrichment and isolation. Pre-enrichment in a non-selective medium allows for repair of cell damage and facilitates the recovery of *Salmonella*.

### FORMULA PER LITER

Peptone	10,00
Sodium chloride	5,00
Disodium phosphate anhydrous	3,50 (*)
Monopotassium phosphate	1,50

(\*) Equivalent to 9,0 g of disodium hydrogen phosphate dodecahydrate

Formula may be adjusted and/or supplemented as required to meet performance specifications

pH final at 25°C : 7,0 ± 0,2

### STORAGE

Tubes, bottles and bags: 2 - 25°C

Dehydrated media: 2 - 30°C

Expiry date indicated on labels applies to medium in its intact container when stored as directed.

### DIRECTIONS

1. Dissolve 20 g of the medium in one liter of purified water.
2. Mix thoroughly.
3. Autoclave at 121°C for 15 minutes. Prepared medium is clear, with no to light precipitate and colorless to pale yellow

### TEST PROCEDURE

Refer to appropriate references for specific procedures using Buffered Peptone Water

### QUALITY CONTROL

According to ISO 11133, inoculum: 10-10<sup>2</sup> CFU/ml, streaking T<sub>0</sub> et T 45mn, reference media TSA, incubation 24 ± 3 hours at 37 ± 1°C.

Microorganism	Reference	Results
<i>Staphylococcus aureus</i>	ar	Total count T <sub>45</sub> ± 30% Total count T <sub>0</sub>
<i>Escherichia coli</i>	ATCC® 8739	Total count T <sub>45</sub> ± 30% Total count T <sub>0</sub>
<i>Salmonella typhimurium</i>	ATCC® 14028	Qualitative control, incubation 18 ± 2 hours at 37 ± 1°C, turbidity ≥ 2

### REFERENCES

1. ISO 6579. 2002. Microbiology and animal feeding stuffs. Horizontal methods for the detection of *Salmonella* spp.
2. ISO 6785. 2001. Milk and milk products. Detection of *Salmonella* spp.
3. ISO 6887-1. 1999. Microbiology of food and animal feeding stuffs - Preparation of test samples, initial suspension and decimal dilutions for microbiological examination. Part 1: General rules for the preparation of the initial suspension and decimal dilutions.



4. ISO 6887-2. 2004. Microbiology of food and animal feeding stuffs - Preparation of test samples, initial suspension and decimal dilutions for microbiological examination. Part 2: Specific rules for the preparation of meat and meat products.
5. ISO 6887-3. 2004. Microbiology of food and animal feeding stuffs - Preparation of test samples, initial suspension and decimal dilutions for microbiological examination. Part 3: Specific rules for the preparation of fish and fishery products.
6. ISO 6887-4. 2011. Microbiology of food and animal feeding stuffs - Preparation of test samples, initial suspension and decimal dilutions for microbiological examination. Part 4: Specific rules for the preparation of products other than milk and milk products, meat and meat products and fish and fishery products.
7. ISO/DIS 6887-5. 2010. Microbiology of food and animal feeding stuffs - Preparation of test samples, initial suspension and decimal dilutions for microbiological examination. Part 5: Specific rules for the preparation of milk and milk products.
8. ISO/DIS 6887-6. 2013. Microbiology of food and animal feed — Preparation of test samples, initial suspension and decimal dilutions for microbiological examination — Part 6: Specific rules for the preparation of samples taken at the primary production stage.
9. ISO 8261. 2001. Milk and milk products. General guidance for the preparation of test samples for microbiological examination
10. ISO/TS 11133:2014. Microbiology of food, animal feed and water - Preparation, production, storage and performance testing of culture media.

## PACKAGING

<b>Code</b>	<b>Description</b>
BGWI3001	2 bags x 5 liters
BGWI3002	4 bags x 3 liters



# BAGGYWEL Half Fraser

## I. Intended use

Half-Fraser Broth is used for the selective and differential enrichment of *Listeria monocytogenes* in food and feed products.

## II. Formula

Quantity for 1 liter of medium:

Polypeptone	10.00 g	Esculin	1.00 g
Meat extract	5.00 g	Lithium chloride	3.00 g
Yeast extract	5.00 g	Nalidixic acid	10.0 mg
Sodium chloride	20.00 g	Acriflavin (HCl)	12.5 mg
Disodium phosphate, anhydrous	9.60 g	Ferric ammonium citrate	0.50 g
Monopotassium phosphate	1.35 g		

Final pH at 25°C: 7.2+/-0.2

## III. Conservation

Store between 2 and 25°C in the dark until expiry date, written on the packaging.

## IV. Instruction for use

1. **Primary enrichment:** inoculate 25g of product in 225ml of Half Fraser broth. Homogenize and incubate 24h+/-3h at 30°C.
2. **Secondary enrichment:** after incubation, inoculate 0,1ml of Half Fraser broth in 10ml of Fraser broth. Incubate tubes at 37°C during 24h 2 times. Medium
3. **Isolate** on Palcam or Oxford after each 24h of enrichment. Other media such as Ottaviani and Agosti can be used. In this case, use the medium technical document for results reading.
4. *Listeria* can lead to a black medium color when esculin is hydrolyzed in esculetin. This property is not specific to *Listeria* sp.; it is compulsory to isolate and identify the strain to confirm presence of *Listeria*.

## V. Quality control

Typical culture response after 24 hours of incubation at 30°C, followed by subculture on Ottaviani and Agosti agar.

### 1. Selectivity

Control strain	Expected results	Results
<i>Enterococcus faecalis</i> ATCC 29212	Partial to total inhibition	Compliant
<i>Escherichia coli</i> ATCC 25922	Total inhibition	Compliant

### 2. Productivity

Control strain	Expected results	Results
<i>Listeria monocytogenes</i> ATCC 19114 + <i>Enterococcus faecalis</i> ATCC 29212 + <i>Escherichia coli</i> ATCC 25922	>10 blue/green colonies Total inhibition Total inhibition	Compliant

## VI. Bibliography

1. Fraser, J. and W. Sperber. 1988. Rapid detection of *Listeria* Spp in food and environmental samples by esculin hydrolysis. *Journal of Food Protection*. 51:762-765.
2. ISO/TS 11133:2014. Microbiology of food, animal feed and water - Preparation, production, storage and performance testing of culture media.
3. ISO 11290-1. 1996 Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of *Listeria monocytogenes* -- Part 1: Detection method
4. ISO 11290-1/A1. 2005. Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of *Listeria monocytogenes* -- Part 1: Detection method. Amendment 1: Modification on isolation media, hemolysis confirmation and introduction of accuracy data.
5. ISO 11290-2. 1998. Microbiology of the food chain - Horizontal method for the detection and enumeration of *Listeria monocytogenes* and of *Listeria* spp. -- Part 2: Enumeration method