# Buffered Peptone Water/Broth

**355-4179**
**355-5795**
**356-4684**
**355-5790**

## DEFINITION

A non-selective broth used particularly in phases of pre-enrichment (e.g. detection of *Salmonella*), and of revivification (e.g. enumeration of *Listeria*) in order to standardize the test sample and make dilutions.

## STANDARDS

### FOOD MICROBIOLOGY

- **NF EN ISO 8261 (October 2001):** Milk and dairy products - General guidelines for the preparation of samples for testing stock suspension and decimal dilutions for the purposes of microbiological examination (IC: V04-018).

- **NF EN ISO 6887-1 (September 1999):** Food microbiology - Preparation of samples, of stock suspension and of decimal dilutions for the purposes of microbiological examination - Part 1: General rules for the preparation of stock suspension and decimal dilutions (IC: V08-010-1).

- **NF EN ISO 11290-2/A1 (February 2005):** Food microbiology - Horizontal method for the detection and enumeration of *Listeria monocytogenes* - Part 2: Enumeration method (IC: V08-028-2).

- **NF EN ISO 6579 (December 2002):** Food microbiology - Horizontal method for the detection of *Salmonella spp.*

- **FIL 93B (1995):** Milk and dairy products - Detection of *Salmonella*.

- **NF ISO 21528-1 (December 2004):** Horizontal method for the detection and enumeration of *Enterobacteriaceae* - Part 1: MPN technique with pre-enrichment.

- **NF ISO 21528-2 (December 2004):** Horizontal method for the detection and enumeration of *Enterobacteriaceae* - Part 2: Colony count technique.

*N.B.: these two standards replace NF ISO 7402, ISO 5552 and NF ISO 8523.*

### WATER

- **NF T90-400 (December 1987):** Water test - General guidelines for microbiological tests (IC: T90-400).
- **NF EN ISO 19250 (July 2010):** Water quality - Detection and enumeration of *Salmonella*.

- **NF T90-461/A2 (May 2007)**: Water quality - Microbiology - Quality control for culture media.

## PRINCIPLE

Growth of most bacteria is enhanced by nutrient substances from the special mix of peptones. The medium is selective with the eventual addition of nalidixic acide (NAC).

## PRESENTATION

- **Ready-to-use**

| | |
|---|---|
| 225 ml x 6 bottles | **code 355-4179** |
| 3 l x 4 bags | **code 355-5795** |
| 5 l x 2 bags | **code 355-5790** |

- **Dehydrated**

| | |
|---|---|
| 500 g | **code 356-4684** |

## STORAGE

- Ready-to-use: + 15℃ to 25℃.
- Dehydrated: + 15℃ to 25℃, in carefully-sealed bottles in a cool, dry place.
- Expiration date and batch number are shown on the package.

## THEORETICAL FORMULA

| | |
|---|---|
| Enzymatic casein digest | 10 g |
| Sodium chloride | 5 g |
| $Na_2HPO_4$ (anhydrous) | 3.5 g |
| $KH_2PO_4$ | 1.5 g |
| Distilled water | 1,000 ml |

Final pH (25℃) = 7.0 ± 0.2

## OTHER PRODUCTS REQUIRED (NOT SUPPLIED)

- Distilled water

## EQUIPMENT REQUIRED (NOT SUPPLIED) (non-exhaustive)

- Scales
- Hotplate
- Mixer-homogenizer
- Tubes or bottles
- Pipettes
- Autoclave



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## PREPARATION OF DEHYDRATED MEDIUM

**Always shake before use**

Dissolve 20 g of powder in 1 liter of distilled water.

Mix, heating if necessary, until a homogenous suspension is obtained. Dispense and sterilize in autoclave at 121℃ (± 1℃) for 15 or 20 minutes, depending on the standards.

## PRECAUTIONS

Comply with Good Laboratory Practice.

## PERFORMANCES / QUALITY CONTROL OF THE TEST

The growth performances of the media are verified with the following strains:

| STRAINS | Growth after 18 h culture at 37℃ |
|---|---|
| *Salmonella Typhimurium* ATCC 14028 | + |
| *Salmonella Enteritidis* ATCC 13076 | + |

## QUALITY CONTROL OF MANUFACTURER

Every product manufactured and marketed by Bio-Rad is subject to a quality-assurance procedure at all stages, from the reception of raw materials to the marketing of the end-product. Each batch of finished product undergoes quality control and is marketed only if it satisfies the acceptability criteria.

Documentation relative to the production and control of each batch is kept on file.

## KEY WORDS

Buffered peptone water / *Salmonella* / *Listeria* / Micro-organisms / Food products / Water / Detection / Enumeration / Enrichment / Dilution / Diluent / Broth / Medium.



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