

BUFFERED PEPTONE WATER (MEAT)



INTENDED USE

Non selective broth, used as general purpose liquid medium in microbiology and as diluent for the sample preparation/dilution of food samples according to ISO Standards.

PRINCIPLE OF THE METHOD AND EXPLANATION

Enzymatic digest of meat supplies nitrogen and carbon needed for the growth of bacteria. The phosphate buffer maintains the correct pH that is important for the recovery of injured bacteria.

Buffered peptone water (meat) is a multipurpose medium recommended for sample preparation and dilutions for all microbiological methods for detection and enumeration of microorganisms (ISO 6887 all parts, 11290-2, ISO 21528)

DIRECTIONS FOR PREPARATION FROM DEHYDRATED MEDIUM

Dissolve 20 g in 1 litre of purified water, by heating if necessary. Dispense the medium into flasks or tubes of suitable capacity. Sterilise in the autoclave at 121 °C for 15 minutes.

PHYSICAL CHARACTERISTICS

Dehydrated medium appearance: beige, fine, homogeneous, free-flowing powder.

Prepared medium appearance: dark yellow, limpid.

Final pH: 7.0 ± 0.2

TECHNIQUE

The experimental procedure depends on the purpose for which the liquid medium is used. Refer to the ISO Standards for the details of the procedures.

TYPICAL FORMULA *

Dehydrated and ready to use media (g/L)

Enzymatic Digest of Animal Tissue	10.0
Sodium Chloride	5.0
Disodium Hydrogen Phosphate anhydrous	3.5 **
Monopotassium Phosphate	1.5

* Adjusted and/or supplemented to meet performances criteria.

** Equivalent to disodium hydrogen phosphate dodecahydrate 9 g/l)

QUALITY CONTROL: MICROBIOLOGICAL CHARACTERISTICS

It is user's responsibility to carry out the quality control in accordance with the regulations in force and according to his own Laboratory experience. The following table shows some useful strains for quality control.

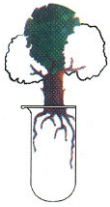
Test Strains	Incubation T° / t / At.	Inoculation method	Growth characteristics	Productivity rate
<i>E. coli</i> ATCC 25922	20 °C / 1 h / AE	10 ⁴ /tube	Subculture on Tryptic Soy Agar plate	0.7>T ₁ /T ₀ >1.3
<i>L. monocytogenes</i> ATCC 13932	20 °C / 1 h / AE	10 ⁴ /tube	Subculture on Tryptic Soy Agar plate	0.7>T ₁ /T ₀ >1.3
<i>S. Typhimurium</i> ATCC 14028	37 °C / 18 h / AE	DE	Good growth	DDI ≤ 1
<i>S. Enteritidis</i> ATCC 13076	37 °C / 18 h / AE	DE	Good growth	DDI ≤ 1

Notes

T0: original test strain count, T1: test strain count after 1 hour incubation

DE: dilutions to extinction method

DDI : Highest dilution showing growth on reference culture medium (RB) - highest dilution showing growth on culture medium under test (TB)



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Technical Sheet

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STORAGE

Dehydrated medium: +10-+30 °C, away from bright light, in a dry place. When stored as directed the products remain stable until the expiry date shown on the label. Do not use beyond stated expiry date. Discard if there are signs of deterioration.

PRECAUTIONS

The product described here is not classified as dangerous under current legislation.

As with all dehydrated media, the product must be handled with adequate protection of the respiratory tract. The medium described here is a product for professional use only and must be used in the laboratory by properly trained operators, with approved methods of asepsis and safety against pathogens.

Consult the safety data sheet before use.

REFERENCES

- 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
- ISO 6887-2:2003 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
- ISO 6887-3:2003 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
- ISO 6887-4:2003 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.
- ISO 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.
- ISO 11290-2:1998 Microbiology of food and animal feeding stuffs -- Horizontal method for the detection and enumeration of *Listeria monocytogenes* -- Part 2: Enumeration method
- ISO 21528-1:2004 Microbiology of food and animal feeding stuffs -- Horizontal methods for the detection and enumeration of *Enterobacteriaceae* -- Part 1: Detection and enumeration by MPN technique with pre-enrichment
- ISO 21528-2:2004 Microbiology of food and animal feeding stuffs -- Horizontal methods for the detection and enumeration of *Enterobacteriaceae* -- Part 2: Colony-count method
- ISO 6579 Microbiology of food and animal feed stuffs Horizontal method for the detection of *Salmonella* spp. 2000.

PRODUCTS

Product	Type	Cat. N°	Pack size
BUFFERED PEPTONE WATER (MEAT)	DCM	401278B2	500 g (25 L)
BUFFERED PEPTONE WATER (MEAT)	DCM	401278B4	5 kg (250 L)



Biolife Italiana Srl, Viale Monza 272, 20128 Milano.