

BUFFERED PEPTONE WATER EUROPEAN PHARMACOPEIA

CAT Nº: 1401

Recommended as a diluent for the homogenization of samples

FORMULA IN g/l

Disodium Hydrogen Phosphate Dihydrate	7.20	Potassium Dihydrogen Phosphate	3.60
Sodium Chloride	4.30	Pancreatic Digest of Casein	1.00

Final pH 7.0 ± 0.2 at 25°C

PREPARATION

Suspend 16.1 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Dispense into appropriate containers and sterilize in autoclave at 121°C for 15 minutes. The prepared medium should be stored at 2-8°C. The color is transparent.

The dehydrated medium should be homogeneous, free-flowing and whitish in color. If there are any physical changes, discard the medium.

USES

BUFFERED PEPTONE WATER is recommended by the European Pharmacopoeia in the Paragraph 2.6.12 'Microbiological examination of non – sterile products: Microbial enumeration test', and in the Paragraph 2.6.13 'Microbiological examination of non-Sterile products: test for specified micro-organisms' as a diluent for the homogenization of samples, effectiveness of culture media and validity of the counting method.

Pancreatic digest of casein provides nitrogen, vitamins, minerals and amino acids essential for growth. Potassium phosphates act as a buffer system and Sodium chloride supplies essential electrolytes for transport and osmotic balance.

It is used in the preparation of the samples to dissolve or dilute water-soluble products (1:10 dilution) and non-fatty products insoluble in water (in general 1:10 dilution, but some may require larger volumes of Buffered Peptone Water)

Fatty products are homogenized with a suitable sterile surface-active agent such as Polysorbate or TWEEN 80 heated if necessary to no more than 40°C or, in exceptional cases, to no more than 45°C. Mix carefully and if necessary maintain the temperature in a water-bath. Add enough of the pre-warmed Buffered Peptone Water diluent to make a 1 in 10 dilution of the original product.

When testing, Buffered Peptone Water is used to prepare reference suspensions. Inoculate and incubate at 30-35°C for 18-24 hours.

MICROBIOLOGICAL TEST

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 30-35°C and observed after 18-24 hours.

Microorganisms	Growth
<i>Staphylococcus aureus</i> ATCC 6538	Good
<i>Escherichia coli</i> ATCC 8739	Good
<i>Bacillus subtilis</i> ATCC 6633	Good
<i>Candida albicans</i> ATCC 10231	Good
<i>Aspergillus brasiliensis</i> ATCC 16404	Good

Salmonella typhimurium ATCC 14028

Good

BIBLIOGRAPHY

European Pharmacopoeia 7.0



STORAGE

Once opened keep powdered medium closed to avoid hydration.



2°C