



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.

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.

APPEARANCE

Dehydrated medium: free-flowing, homogeneous, light beige.

Prepared medium: clear, light amber.

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

The medium is inoculated with the microbial strains indicated in the QC tables.

Inoculum for use as diluent: 10³-10⁴ CFU.

Incubation conditions: 45 min - 1 h / 18-27°C.

QC Table 1.

Microorganism		Specification
<i>Escherichia coli</i>	WDCM 00012	± 30% colonies of original count
<i>Staphylococcus aureus</i>	WDCM 00034	± 30% colonies of original count
<i>Listeria monocytogenes</i> 4b	WDCM 00021	± 30% colonies of original count

Inoculum for productivity: ≤ 100 CFU.

Incubation conditions: 18 ± 2 h / 37 ± 1°C.

QC Table 2.

Microorganism		Specification
<i>Salmonella typhimurium</i>	WDCM 00031	Good growth/turbidity of the medium
<i>Salmonella enteritidis</i>	WDCM 00030	Good growth/turbidity of the medium
<i>Escherichia coli</i>	WDCM 00012	Good growth/turbidity of the medium

WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product is intended for professional use and must be used only by properly trained operators.

DISPOSAL OF WASTE

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

BIBLIOGRAPHY

1. EN ISO 11133:2014+Amd1:2018. Microbiology of food, animal feed and water – Preparation, production, storage and performance testing of culture media.
2. ISO 11290-2:2017. Microbiology of the food chain – Horizontal method for the detection and enumeration of *Listeria monocytogenes* and *Listeria* spp. – Part 2: Enumeration method.
3. ISO 21528-1:2017. Microbiology of the food chain – Horizontal method for the detection and enumeration of *Enterobacteriaceae* – Part 1: Detection of *Enterobacteriaceae*.
4. ISO 21528-2:2017. Microbiology of the food chain – Horizontal method for the detection and enumeration of *Enterobacteriaceae* – Part 2: Colony-count technique.
5. ISO 6579-1:2017. Microbiology of the food chain – Horizontal method for the detection, enumeration and serotyping of *Salmonella* spp. – Part 1: Detection of *Salmonella* spp.
6. Rose (2001) Isolation and identification of *Salmonella* from meat, poultry and egg products. In Microbiology laboratory guidebook, 3rd ed., Food Safety and Inspection Service, U.S. Department of Agriculture, Washington, D.C.
7. ISO 6887-1:2017. Microbiology of the food chain – 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.
8. Sadovski (1977) J. Food Technol. 12:85.
9. Edel and Kampelmacher (1973) Bull. W.H.O. 48:167.

PRESENTATION	Category	Packaging	Ref.
Buffered Peptone Water	Media in tubes	20 x 9 ml	24199
Buffered Peptone Water	Media in tubes	100 x 9 ml	26199
Buffered Peptone Water	Media in tubes	20 x 10 ml	24099
Buffered Peptone Water (Double Concentration)	Media in tubes	20 x 9 ml	24463
Buffered Peptone Water	Media in bottles	6 x 90 ml	414030
Buffered Peptone Water	Media in bottles	25 x 90 ml	454030
Buffered Peptone Water	Media in bottles	6 x 200 ml	412090
Buffered Peptone Water	Media in bottles	6 x 225 ml	414020
Buffered Peptone Water	Media in bottles	25 x 225 ml	451402
Buffered Peptone Water - Bags	Media in bags	3 x 3 l	499030
Buffered Peptone Water - Bags	Media in bags	3 x 5 l	499035
Buffered Peptone Water	Dehydrated media	100 g	621014
Buffered Peptone Water	Dehydrated media	500 g	611014
Buffered Peptone Water	Dehydrated media	5 kg	6110145

TABLE OF SYMBOLS

LOT Batch code	 Keep away from sunlight	 Manufacturer	 Use by	 Fragile, handle with care
REF Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Caution, consult Instruction For Use	 Do not reuse



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Buffered Peptone Water

Diluyente e terreno liquido non-selettivo di pre-arricchimento per l'esame microbiologico degli alimenti, in accordo alle ISO 6887, 11290, 21528 e 6579.

DESCRIZIONE

Buffered Peptone Water (BPW) è un terreno liquido raccomandato dalla ISO 6579 per aumentare il recupero di *Salmonella* spp. da campioni alimentari e materiale associato prima dell'arricchimento selettivo e dell'isolamento.

In accordo alla ISO 21528, BPW è utilizzato per la ricerca ed il conteggio delle Enterobacteriaceae negli alimenti.

Utilizzato come diluyente, BPW Water è conforme alle ISO 6887 e 11290 per il conteggio dei microrganismi.

FORMULA TIPICA

	(g/l)
Digerito Enzimatico di Caseina	10.0
Sodio Cloruro	5.0
Sodio Fosfato Bibasico	3.5*
Potassio Fosfato Monobasico	1.5
pH Finale 7.0 ± 0.2 a 25°C	

*Equivalente a 9.0 g di Sodio Fosfato Bibasico Dodecaidrato.

PRINCIPIO DEL METODO

Il digerito enzimatico di caseina fornisce amminoacidi, azoto, carbonio e minerali. Il sodio cloruro mantiene il bilancio osmotico del terreno. I fosfati agiscono da tampone.

PREPARAZIONE

Terreno disidratato Sospendere 20.0 g di polvere in 1 litro di acqua distillata o deionizzata sterile. Mescolare bene. Riscaldare agitando di frequente e bollire fino a completa dissoluzione. Sterilizzare in autoclave a 121°C per 15 minuti.

PROCEDURA DEL TEST

Risospendere il campione in BPW per ottenere le diluizioni necessarie.

Per il pre-arricchimento, diluire il campione in BPW con rapporto 1:10 o 1:9 a seconda del metodo utilizzato. Incubare a 37°C per 16-20 ore prima di trasferire su terreni per l'arricchimento selettivo.

INTERPRETAZIONE DEI RISULTATI

La torbidità è indice di crescita microbica.

ASPETTO

Terreno disidratato: omogeneo, fine granulometria, beige chiaro.

Terreno preparato: limpido, ambra chiaro.

CONSERVAZIONE

La polvere è fortemente igroscopica, conservare a 10-30°C, in ambiente asciutto, nel suo contenitore originale chiuso ermeticamente. Conservare i flaconi e le provette a 10-25°C al riparo dalla luce. Non usare il prodotto dopo la sua data di scadenza indicata sull'etichetta o se il prodotto mostra segni di contaminazione o deterioramento.

VALIDITÀ

Terreno disidratato: 4 anni.

Terreno pronto: 2 anni.

CONTROLLO DI QUALITÀ

Il terreno è inoculato con i ceppi microbici indicati nelle tabelle CQ.

Inoculo per l'utilizzo come diluyente: 10^3 - 10^4 UFC.

Condizioni di incubazione: 45 min - 1 ora / 18-27°C.

Tabella CQ 1.

Microrganismo	Specifiche	
<i>Escherichia coli</i>	WDCM 00012	$\pm 30\%$ delle colonie rispetto al conteggio originale
<i>Staphylococcus aureus</i>	WDCM 00034	$\pm 30\%$ delle colonie rispetto al conteggio originale
<i>Listeria monocytogenes</i> 4b	WDCM 00021	$\pm 30\%$ delle colonie rispetto al conteggio originale

Inoculo per produttività: ≤ 100 UFC.

Condizioni di incubazione: 18 ± 2 ore / $37 \pm 1^\circ\text{C}$.

Tabella CQ 2.

Microrganismo	Specifiche	
<i>Salmonella</i> Typhimurium	WDCM 00031	Buona crescita/torbidità del terreno
<i>Salmonella</i> Enteritidis	WDCM 00030	Buona crescita/torbidità del terreno
<i>Escherichia coli</i>	WDCM 00012	Buona crescita/torbidità del terreno

AVVERTENZE E PRECAUZIONI

Il prodotto non contiene sostanza nocive in concentrazioni superiori ai limiti fissati dall'attuale legislazione e perciò non è classificato come pericoloso. Ciononostante si raccomanda di consultare la scheda di sicurezza per il suo corretto uso. Il prodotto è da intendersi per uso in ambito professionale e deve essere utilizzato esclusivamente da operatori adeguatamente addestrati.

SMALTIMENTO DEI RIFIUTI

Lo smaltimento dei rifiuti deve essere effettuato in conformità alle normative nazionali e locali in vigore.

BIBLIOGRAFIA

1. EN ISO 11133:2014+Amd1:2018. Microbiology of food, animal feed and water – Preparation, production, storage and performance testing of culture media.
2. ISO 11290-2:2017. Microbiology of the food chain – Horizontal method for the detection and enumeration of *Listeria monocytogenes* and *Listeria* spp. – Part 2: Enumeration method.
3. ISO 21528-1:2017. Microbiology of the food chain – Horizontal method for the detection and enumeration of *Enterobacteriaceae* – Part 1: Detection of *Enterobacteriaceae*.
4. ISO 21528-2:2017. Microbiology of the food chain – Horizontal method for the detection and enumeration of *Enterobacteriaceae* – Part 2: Colony-count technique.
5. ISO 6579-1:2017. Microbiology of the food chain – Horizontal method for the detection, enumeration and serotyping of *Salmonella* spp. – Part 1: Detection of *Salmonella* spp.
6. Rose (2001) Isolation and identification of *Salmonella* from meat, poultry and egg products. In Microbiology laboratory guidebook, 3rd ed., Food Safety and Inspection Service, U.S. Department of Agriculture, Washington, D.C.
7. ISO 6887-1:2017. Microbiology of the food chain – 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.
8. Sadovski (1977) J. Food Technol. 12:85.
9. Edel and Kampelmacher (1973) Bull. W.H.O. 48:167.

PRESENTAZIONE	Categoria	Confezione	Ref.
Buffered Peptone Water	Terreni in provette	20 x 9 ml	24199
Buffered Peptone Water	Terreni in provette	100 x 9 ml	26199
Buffered Peptone Water	Terreni in provette	20 x 10 ml	24099
Buffered Peptone Water (Double Concentration)	Terreni in provette	20 x 9 ml	24463
Buffered Peptone Water	Terreni in flaconi	6 x 90 ml	414030
Buffered Peptone Water	Terreni in flaconi	25 x 90 ml	454030
Buffered Peptone Water	Terreni in flaconi	6 x 200 ml	412090
Buffered Peptone Water	Terreni in flaconi	6 x 225 ml	414020
Buffered Peptone Water	Terreni in flaconi	25 x 225 ml	451402
Buffered Peptone Water - Bags	Terreni in sacche	3 x 3 litri	499030
Buffered Peptone Water - Bags	Terreni in sacche	3 x 5 litri	499035
Buffered Peptone Water	Terreni disidratati	100 g	621014
Buffered Peptone Water	Terreni disidratati	500 g	611014
Buffered Peptone Water	Terreni disidratati	5 kg	6110145

TABELLA DEI SIMBOLI

LOT	Codice del lotto	 Tenere al riparo dalla luce	 Fabbricante	 Utilizzare entro	 Fragile, maneggiare con cura
REF	Numero di catalogo	 Limiti di temperatura	 Contenuto sufficiente per <n> saggi	 Attenzione, Consultare le istruzioni per l'uso	 Non riutilizzare



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Buffered Peptone Water

Diluyente y medio líquido no selectivo para el pre-enriquecimiento para el control microbiológico de alimentos de acuerdo a ISO 6887, 11290, 21528 y 6579.

DESCRIPCIÓN

Buffered Peptone Water (BPW) es un medio líquido recomendado por la ISO 6579 para aumentar la recuperación de *Salmonella* spp. dañadas a partir de alimentos y muestras similares antes del enriquecimiento selectivo y del aislamiento.

Según la ISO 21528, BPW se usa para la detección y conteo de Enterobacteriaceae en alimentos.

Utilizado como diluyente, BPW sigue la ISO 6887 y 11290 para el conteo de organismos.

FÓRMULA

	(g/l)
Digerido Enzimático de Caseína	10.0
Cloruro Sódico	5.0
Disodio Hidrógeno Fosfato	3.5*
Potasio Dihidrógeno Fosfato	1.5
pH final 7.0 ± 0.2 a 25°C	

*Equivalente a 9.0 g de disodio dodecahidrato de fosfato de hidrógeno

PRINCIPIO DEL MÉTODO

El digerido enzimático de caseína suministra los aminoácidos, nitrógeno, carbono, vitaminas y minerales necesarios para el crecimiento de los microorganismos. El cloruro sódico mantiene el equilibrio osmótico del medio. Los fosfatos son los agentes tampones.

PREPARACIÓN

Medio deshidratado Suspender 20 g del polvo deshidratado en 1 litro de agua destilada o desionizada. Mezclar bien. Calentar hasta la ebullición removiendo frecuentemente hasta la completa disolución. Esterilizar en autoclave a 121°C durante 15 minutos.

PROCEDIMIENTO DEL TEST

Suspender la muestra en BPW para realizar las diluciones necesarias.

Para un pre-enriquecimiento, añadir la muestra a BPW con una relación de 1:10 ó 1:9 dependiendo del método utilizado. Incubar a 37 ± 1°C durante 16-20 horas antes de transferir a un medio de enriquecimiento selectivo.

INTERPRETACIÓN DE LOS RESULTADOS

La formación de turbidez indica el crecimiento microbiano.

ASPECTO

Medio deshidratado: suelto, homogéneo, beige claro.

Medio preparado: claro, ámbar claro.

ALMACENAMIENTO

El polvo deshidratado es muy higroscópico, almacenar a 10-30°C, en un entorno seco, en su frasco original correctamente cerrado. Almacenar las botellas y las placas preparadas a 10-25°C fuera del contacto de la luz. No utilizar el producto fuera de la fecha de caducidad descrita en la etiqueta o si el producto presenta alguna muestra de deterioro o contaminación.

VIDA ÚTIL

Dehydrated medium: 4 years.

Prepared medium: 2 years.

CONTROL DE CALIDAD

El medio se inocula con las cepas indicadas en las siguientes tablas.

Inóculo para uso como diluyente: 10³-10⁴ CFU.

Condiciones de incubación: 45 min - 1 hora / 18-27°C.

Tabla CC 1.

Microorganismo	Notes
<i>Escherichia coli</i> WDCM 00012	± 30% colonias del conteo inicial
<i>Staphylococcus aureus</i> WDCM 00034	± 30% colonias del conteo inicial
<i>Listeria monocytogenes</i> 4b WDCM 00021	± 30% colonias del conteo inicial

Inóculo de productividad: ≤ 100 CFU.

Condiciones de incubación: 18 ± 2 horas / 37 ± 1°C.

Tabla CC 2.

Microorganismo	Notes
<i>Salmonella typhimurium</i> WDCM 00031	Crecimiento bueno/turbidez evidente en el medio
<i>Salmonella enteritidis</i> WDCM 00030	Crecimiento bueno/turbidez evidente en el medio
<i>Escherichia coli</i> WDCM 00012	Crecimiento bueno/turbidez evidente en el medio

ADVERTENCIAS Y PRECAUCIONES

Este producto no contiene sustancias peligrosas en concentraciones que excedan los límites fijados por la legislación actual y no está clasificado como peligroso. Se recomienda de todas formas la lectura de la hoja de seguridad para el uso apropiado. El producto está pensado para un uso exclusivo en el campo profesional y debe ser utilizado sólo por operadores debidamente adiestrados.

DESECHO DE RESIDUOS

El desecho de los residuos debe realizarse según la regulación nacional y local vigente.

BIBLIOGRAFÍA

1. EN ISO 11133:2014+Amd1:2018. Microbiology of food, animal feed and water – Preparation, production, storage and performance testing of culture media.
2. ISO 11290-2:2017. Microbiology of the food chain – Horizontal method for the detection and enumeration of *Listeria monocytogenes* and *Listeria* spp. – Part 2: Enumeration method.
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8. Sadovski (1977) J. Food Technol. 12:85.
9. Edel and Kampelmacher (1973) Bull. W.H.O. 48:167.

PRESENTACIÓN	Categoría	Paquete	Ref.
Buffered Peptone Water	Medios en tubos	20 x 9 ml	24199
Buffered Peptone Water	Medios en tubos	100 x 9 ml	26199
Buffered Peptone Water	Medios en tubos	20 x 10 ml	24099
Buffered Peptone Water (Double Concentration)	Medios en tubos	20 x 9 ml	24463
Buffered Peptone Water	Medios en botellas	6 x 90 ml	414030
Buffered Peptone Water	Medios en botellas	25 x 90 ml	454030
Buffered Peptone Water	Medios en botellas	6 x 200 ml	412090
Buffered Peptone Water	Medios en botellas	6 x 225 ml	414020
Buffered Peptone Water	Medios en botellas	25 x 225 ml	451402
Buffered Peptone Water - Bags	Medios en bolsas	3 x 3 l	499030
Buffered Peptone Water - Bags	Medios en bolsas	3 x 5 l	499035
Buffered Peptone Water	Medios deshidratados	100 g	621014
Buffered Peptone Water	Medios deshidratados	500 g	611014
Buffered Peptone Water	Medios deshidratados	5 kg	6110145

TABLA DE SÍMBOLOS

LOT Código de lote	 Mantener alejado de fuentes de luz	 Fabricante	 Utilizar antes de	 Frágil, manipular con cuidado
REF Número de catálogo	 Límites de temperatura	 Contenido suficiente para <n> análisis	 Atención, consultar el documento adjunto	 No reutilizar



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