

BUFFERED PEPTONE WATER (BPW)

INTENDED USE AND APPLICATION

Buffered Peptone Water (BPW) is a non-selective medium, used for the pre-enrichment of *Salmonella* species from food and environmental samples.

PRODUCT INFORMATION

SKU	DESCRIPCION	UDM	CANTIDAD
DMR-BPW-1KG	Buffered Peptone Water (BPW) Media	Canister	1 Canister (1 Kg)
DMR-BPW-1KG-CTN	Buffered Peptone Water (BPW) Media	Case	6 Canisters (1 Kg each)
DMR-BPW-20KG	Buffered Peptone Water (BPW) Media	Bucket	1 Bucket (20 Kg)
RTM-BPW-0002-50	Buffered Peptone Water (BPW) 2mL	Case	50 Pieces
RTM-BPW-0002-50	9x Buffered Peptone Water (9xBPW) 2mL	Case	50 Pieces

PRINCIPLE

The medium allows for repair of cell damage that can occur due to heat, dehydration, preservatives and pH changes and enables *Salmonella* recovery. Buffered Peptone Water does this by keeping the pH high during pre-enrichment, allowing cells to heal.

FORMULA

COMPONENT	QUANTITY	UNITS
Peptone	10	g
Sodium Chloride	5	g
Disodium phosphate	3.5	g
Monopotassium Phosphate	1.5	g

Final pH: 7.2 ± 0.2 at 25°C

APPEARANCE

Dehydrated: Powder is homogeneous, free flowing, and light teal.

Prepared: Autoclaved prepared broth is a translucent green color. A light precipitate may occur during storage that returns into solution with a slight mix. Enrichment Ready Media broth is a bright translucent green color.

PRECAUTIONS

This product is for in vitro diagnostic use only. Do not ingest, inhale, or allow to come into contact with skin. Observe approved biohazard precautions and aseptic techniques. Biosafety level 2 procedures should be exercised (BMBL, <http://www.cdc.gov/biosafety/publications/bmbl5/bmbl.pdf> or current site). Extreme care should be taken in handling test samples and enrichment broths. All inoculated enrichment broths may contain various pathogens whether or not they contain *Salmonella* species. The medium is to be used only by adequately trained and qualified laboratory personnel in a laboratory setting. All laboratory specimens should be considered infectious and handled accordingly.

PROCEDURE

MEDIA PREPARATION - AUTOCLAVE METHOD

1. Use a clean bottle for each liter of medium preparation.
2. Shake container of dry enrichment medium before each use.
3. Measure 20 g of powder into the bottle and add 1 L of distilled water.
4. Constantly stir and heat solution until powder is dissolved. The acceptable pH is 7.2 ± 0.2.
5. Sterilize the bottle(s) of prepared medium by autoclaving at 121°C for 15 min.

- Cool bottle(s) to room temperature. Media is stable at room temperature or can be stored at 2–8°C for up to 45 days. Keep away from light.

MEDIA PREPARATION - NON-AUTOClave METHOD

- Prepare a sterile and clean bottle for each liter of medium preparation.
- Shake container of dry enrichment medium before each use.
- Measure 20 g of powder into the bottle and add to 1 L of sterile distilled or deionized water.
- Constantly stir and heat solution until powder is dissolved. The pH should be at 7.2 ± 0.2 .
- Cool the prepared medium to the appropriate temperature ($37 \pm 1^\circ\text{C}$) and use immediately.

PRODUCT STORAGE AND EXPIRATION

For dehydrated media, store either pouches or sealed bottles containing the powder at 2 - 30°C. Once opened, protect from moisture and light by keeping container tightly closed. For ready to use media, store at 2 - 8°C

For all product types, the expiry date is indicated on the package. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original beige color. Expiry applies to medium in its intact container when stored as directed.

DISPOSAL

Dispose of all materials used and the enrichment medium by autoclaving or according to approved practices. Ensure that all biohazard waste is disposed of according to local, municipal, provincial, state and/or federal regulations.

QUALITY CONTROL

All products manufactured by Applied Food Diagnostics, Inc. are incorporated into a quality assurance program from the time the raw materials arrive in the factory through to marketing the end product. Each batch of end product undergoes quality control, and is only marketed if it complies with acceptance criteria. Documentation concerning production and verification of each batch is archived. A Certificate of Analysis of this quality control and Safety Data Sheets are available on the web at www.appliedfooddiagnostics.com.

APPEARANCE

Dehydrated: Powder is homogeneous, free flowing, and light teal color.

Prepared: Autoclaved prepared broth is translucent green color. A light precipitate may occur during storage that returns into solution with a slight mix. Enrichment Ready Media broth is a bright translucent green color.

CULTURAL RESPONSE (PRODUCTIVITY AND SELECTIVITY TESTING)

The medium was prepared according to label directions and 10mL volumes were inoculated with the organisms listed below. Culture broths were incubated at $35 \pm 1^\circ\text{C}$ under aerobic atmosphere and examined for growth at 24 hours. Following incubation, each culture was examined for turbidity and the SIMUL-qPCR assay was performed to determine growth promotion. Also, 1-10 μL of each culture was streaked onto a Chrom-Assured *Salmonella* Detection Plate, incubated at $37^\circ\text{C} \pm 1^\circ\text{C}$, and examined for growth at 22-26 hours. The table below outlines the results.

MICROORGANISM	ATCC/CATALOG NUMBER	APPROX. INOCULUM (CFU/mL)	EXPECTED RESULTS
			Growth in BPW
<i>Salmonella enteritidis</i>	SGSC 2475	30-100	Good Growth
<i>Salmonella typhimurium</i>	SGSC 2522	30-100	Good Growth
<i>Salmonella typhi</i>	SGSC 4072	30-100	Good Growth
<i>Salmonella enterica</i> serovar <i>Montevideo</i>	ATCC 8387	30-100	Good Growth
<i>Carnobacterium divergens</i>	ATCC 35677	30-100	Good Growth
<i>Providencia stuartii</i>	SGSC 5639	30-100	Good Growth
<i>Listeria monocytogenes</i> 4b	B-33000	30-100	Good Growth
<i>Staphylococcus aureus</i>	NR-46412	30-100	Good Growth



TECHNICAL INFORMATION

If you have any questions or experience issues with this product, please contact our support staff via email (support@appliedfooddiagnostics.com). For more information about Applied Food Diagnostics, please visit us at our website (www.appliedfooddiagnostics.com).

TERMS AND CONDITIONS

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