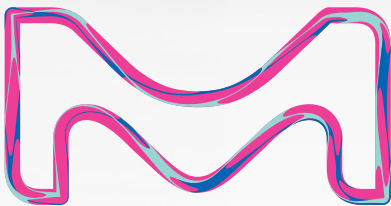


# Buffered peptone water the way you need it

Choose between the product properties, sizes, compliance and convenience levels we offer



The Life Science business  
of Merck operates as  
MilliporeSigma in the  
U.S. and Canada.

**Microbiological food, feed and water testing increasingly requires culture media that meet international regulatory standards such as EN, ISO, FDA-BAM, USDA-FSIS, APHA and Chinese GB.**

**This is also the case for Buffered Peptone Water (BPW), a multipurpose medium widely used in the food and beverage industry to test for pathogenic and spoilage organisms.**

**Various international standards specify it as the culture medium to use for non-selective (pre-)enrichment of microorganisms in a variety of pathogens for food and feed matrices. BPW is also a general diluent of a variety of sample types for quantitative determination and enumeration of microorganisms.**

**Standards that specify BPW for enrichment for detection:**

- *Salmonella* spp.  
EN ISO 6779-12017/AMD1:2020;  
EN ISO/TS 6579-12:2012; EN ISO 19250:2010;  
FDA-BAM Medium 192; USDA-FSIS MLG 1.10:2022;  
APHA; GB 4789.4:2016 GB 4789.30-2016; GB 4789.40-2016;  
GB 4789.41-2016
- *Cronobacter* spp.  
EN ISO 22964:2017
- *Escherichia coli* (STEC)  
EN ISO/TS 13136:2012; EN ISO/DIS 13136-1:2024
- *Enterobacteriaceae*  
EN ISO 21528-1:2017

**Standards that specify BPW for initial suspension and as diluent of samples for enumeration:**

- General sample diluent  
EN ISO 6887 series

**Our range of compliant BPW culture media, available in different formats and package sizes, conveniently serves multiple applications in microbial food and feed product testing.**

# Quality Control (QC) standards guaranteed

ISO describes a selection of test strains for the performance testing of each culture medium which have been shown to be reliable for the demonstration of optimal performance of a particular prepared culture medium. Most of these EN ISO standards specify test strains for productivity testing of BPW, e.g. *Salmonella* strains in EN ISO 6579-1; *Cronobacter* strains in EN ISO 22964, etc. These test strains shall be stated in the supplier's QC documentation of the BPW product. Documentation shall also describe the performance testing of BPW for use as diluent. This allows end users to not repeat the diluent test for multi-purpose media like BPW. The specific performance testing of BPW as diluent is important to avoid a possible over- or underestimation of microorganisms in a food or feed sample which may lead to false decisions about the further use of the produced food.

Medium	Micro-organisms	International Standard	Function	Incubation	Control Strains	Reference Medium	Method of Control	Criteria
BPW	Diluent for all enumeration of micro-organisms	EN ISO 6887 (all parts)	Dilution	45 min - 1h at laboratory ambient temperature (18 °C to 27 °C)	<i>Escherichia coli</i> WDCM 00012 or WDCM 00013 *  <i>Staphylococcus aureus</i> WDCM 00034 **	Tryptic Soy Agar (TSA)	Quantitative	±30% colonies / $T_0$ (±30% of original count)

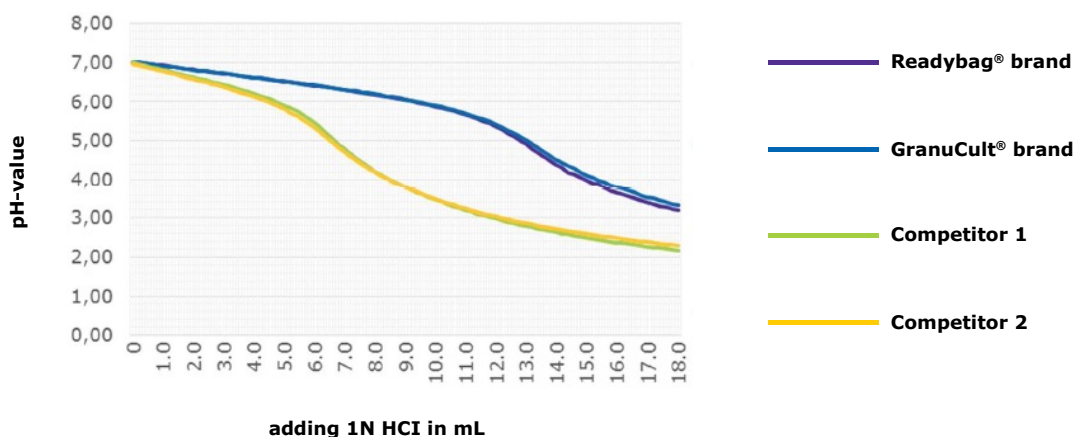
Information taken from EN ISO 6887 (all parts). Strain marked with \* free of choice; one of the strains has to be used as a minimum; strain marked with \*\* to be used as a minimum. According EN ISO 11133:2014/Amd 1:2018, Commercial and non-commercial suppliers of multipurpose liquid media are also expected to test these multipurpose liquid media as diluents for enumerations of microorganisms to further ensure the quality of the culture media they supply.

Our BPW products are quality controlled in accordance with the individual international standards, including the QC as diluent. In addition to being quality controlled according to all the stated standards, our granulated BPW products are released by the quality control laboratory of Merck KGaA, Darmstadt, Germany. The laboratory is accredited by the German accreditation authority DAkkS as registered test laboratory D-PL-15185-01-00 according to DIN EN ISO/IEC 17025 for the performance testing of media for microbiology according to DIN EN ISO 11133.

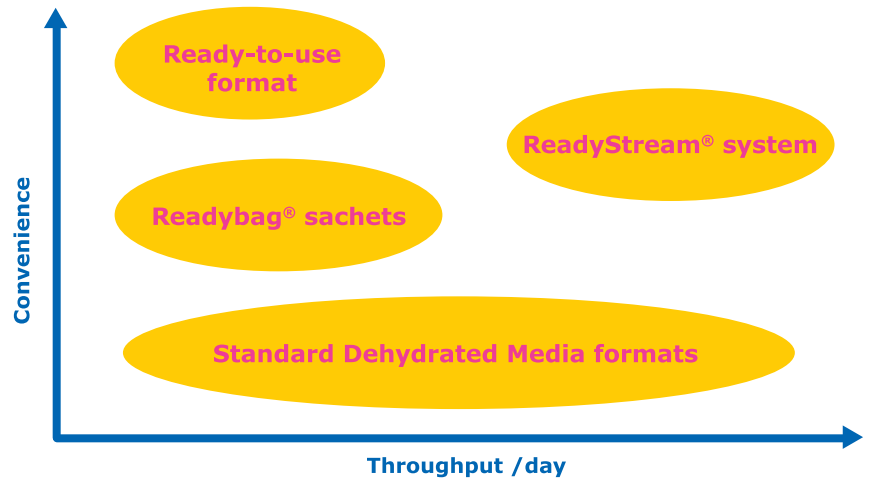
## Higher buffering capacity

The enrichment of acidic and acidifying food and feed samples can cause the pH of the sample drops before or during enrichment. According to EN ISO 6887 series, it must be ensured that the pH does not fall below pH 4.5 to avoid unfavorable growth conditions for pathogens such as *Salmonella* spp. This is why the standard recommends to use double-strength BPW for samples with a low pH or containing probiotic, acid-producing bacteria such as lactobacilli or streptococci that might suppress the growth of *Salmonella* (Joosten et al. 2006. Int J Food Microbiol. 110, 104-107). Our granulated BPW products meet the recommendation given by EN ISO 6887 series and offers a higher buffering capacity than other BPW.

Buffering capacity of different BPW brands



**Our BPW products are available in the following formats to match your application, throughput and desired convenience level:**



### Dehydrated Culture Media

Our BPW is available in three brands of dehydrated culture media, with pack sizes as small as 500 g and as large as 25 kg. All these three media below must be weighed, dissolved and autoclaved before use.

### GranuCult® BPW

Our premium product GranuCult® prime BPW is available as superior, low-dust and easily soluble granules that significantly reduces the spread of dust particles in the lab. The hazard of inhaling hazardous/toxic substances and developing allergic reactions is largely reduced leading to a safer, cleaner working environment. It is quality controlled and released under DIN EN ISO/IEC 17025 accreditation (as described on page 4).



### NutriSelect® BPW halal

Our NutriSelect® prime BPW halal is available in powdered format, but offers the same Quality Control features as described above for our GranuCult® prime BPW. Unique on the market is the halal and kosher certification which is available only for our NutriSelect® prime BPW. This BPW quality is primarily designed for end users who are in need of environmental monitoring applications, e.g by taking swab samples containing BPW in halal and/or kosher certified production facilities where these swabs get in contact with food production equipment. It is quality controlled and released under DIN EN ISO/IEC 17025 accreditation (as described on page 4).



## EcoCult® BPW

Like our NutriSelect® prime BPW, our EcoCult® BPW is also available in powdered format. EcoCult® media are designed to serve customers with a daily high turnover of BPW who are under great pricing pressure. Thus, EcoCult® media are almost all only available in larger pack sizes using Eco-friendly packaging. We replaced plastic drums by a plastic bag plus a corrugated box which significantly reduces environmental impacts related to packaging of the products while ensuring the same protection. The EcoCult BPW is tested according to the actual version of EN ISO 11133 and all relevant specific EN ISO standards.



## Readybag® sachets

For more convenience in food testing, we offer our regulatory compliant GranuCult® prime BPW in prefilled, gamma-irradiated Readybag® sachets for either 125 g or 375 g test samples. There is no need to weigh and autoclave any culture medium. The whole content of 1 sachet is simply added to the stomacher bag, easily dissolved after addition of sterile water, and blended with the sample. Both media and sample preparation are completed within 8 minutes.



## ReadyStream® system

For medium to high throughput in microbial food testing we offer the ReadyStream® system, which delivers prewarmed BPW at the push of a button. Our GranuCult® prime BPW comes in irradiated bags with a capacity of 30 or 100 liters. In an initial step, the bag is filled by the ReadyStream® system with sterile filtered water to generate 3 or 10 liters of 10x concentrated BPW. Whenever BPW is needed, the concentrate can be instantly diluted with sterile water to single- or also double-strength BPW and dispensed into the food sample. There is no need to weigh or autoclave any culture medium. It is quality controlled and released under DIN EN ISO/IEC 17025 accreditation (as described on page 4).



## Ready-to-use broth

Our ready-to-use ReadyTube® BPW broth is the convenient format for small to mid-throughput BPW consumers, as it involves no weighing, dissolving or autoclaving. The ideal choice for serial dilutions, it comes in 1 liter bottles (6 per box) and in 9 mL tubes with a 17 mL capacity (20 per box). It includes release tests by our QC laboratory in Molsheim, France, and its NF EN ISO/IEC 17025 for the performance testing of media.



Feature	GranuCult® prime BPW	NutriSelect® prime BPW Halal & Kosher	EcoCult® BPW	Readybag® BPW	ReadyStream® BPW	ReadyTube® BPW	MediaLab ready-to-use BPW Bag*
<b>Article number</b>	107228	104316	140141	100908 100901	574846.0030 574846.0100	146142 146403 146404	120214
<b>Media type</b>	Granulated	Powder	Powder	Granulated	Granulated	Liquid	Liquid
<b>Regulatory compliance to EN ISO, FDA-BAM, USDA-FSIS, GB standards*</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>QC under DIN EN ISO/IEC 17025 accreditation</b>	Yes	Yes	No	No	Yes	Yes	No
<b>QC acc. actual version of EN ISO 11133</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>QC including <i>Salmonella</i> test strains acc. EN ISO 6579-1</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>QC including <i>Cronobacter</i> test strains acc. EN ISO 22964</b>	Yes	Yes	Yes	Yes	Yes	Yes	No
<b>QC including <i>E. coli</i> test strains acc. EN ISO 21528-1</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>QC as diluent acc. EN ISO 6887 series</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Weighing step needed</b>	Yes	Yes	Yes	No	No	No	No
<b>Autoclaving step needed</b>	Yes	Yes	Yes	No	No	No	No
<b>Buffering capacity</b>	Superior	Standard	Standard	Superior	Superior	Superior	Standard
<b>Other product certifications</b>	No	Halal, Kosher	No	No	No	No	No
<b>Pack sizes</b>	<ul style="list-style-type: none"> <li>• 500g</li> <li>• 5KG</li> <li>• 10KG</li> <li>• 25KG</li> </ul>	<ul style="list-style-type: none"> <li>• 500g</li> <li>• 5KG</li> </ul>	<ul style="list-style-type: none"> <li>• 500g</li> <li>• 5KG</li> <li>• 10 KG</li> <li>• 22,5KG</li> </ul>	<ul style="list-style-type: none"> <li>• 29g for 125 g sample</li> <li>• 86g for 375 g sample</li> </ul>	3 L and 10 L bags for 10x concentrated BPW for 30 L and 100L 1x conc. BPW	<ul style="list-style-type: none"> <li>• 225 mL and 1 L bottle</li> <li>• 9 mL to 17 mL tubes</li> </ul>	<ul style="list-style-type: none"> <li>• 2x5L</li> <li>• 55x5L</li> <li>• 4x3L</li> <li>• 55x3.375L</li> </ul>
<b>Typical end-users</b>	All users	Labs with Halal and/or Kosher production	Price-sensitive, high throughput users without instrument needs	Users who avoid weighing & autoclaving	High throughput users with automated media preparation needs	All users; avoidance of any media preparation	All users; avoidance of any media preparation

Our BPW products all fulfill the regulatory requirements of the stated regulatory standards with respect to formulation, media preparation and quality control.

## Ordering information:

Product	Cat. No.	Pack size
<b>GranuCult® prime Buffered Peptone Water</b> acc. ISO 6579, ISO 19250, ISO 21528, ISO 22964, ISO 6887, FDA-BAM and EP	1.07228.0500 1.07228.5000 1.07228.9010 1.07228.9025	500 g 5 KG 10 KG 25 KG
<b>NutriSelect® prime Buffered Peptone Water</b> acc. ISO 6579, ISO 19250, ISO 21528, ISO 22964, ISO 6887, FDA-BAM and EP	1.04316.0500 1.04316.5000	500 g 5 KG
<b>EcoCult® Buffered Peptone Water</b> acc. ISO 6579, ISO 6887, ISO 21528, ISO 22964, FDA-BAM and EP	1.40141.0500 1.40141.5000 1.40141.9010 1.40141.9022	500 g 5 KG 10 KG 22,4 KG
<b>Readybag® Buffered Peptone Water</b> acc. ISO 6579, ISO 19250, ISO 21528, ISO 22964, ISO 6887, FDA-BAM and EP, 29 g, irradiated	1.00901.0001	60 units / pack
<b>Readybag® Buffered Peptone Water</b> acc. ISO 6579, ISO 19250, ISO 21528, ISO 22964, ISO 6887, FDA-BAM and EP, 86 g, irradiated	1.00908.0001	35 units / pack
<b>ReadyStream® Media Bag GranuCult® Buffered Peptone Water</b> Media Bag GranuCult® Buffered Peptone Water One bag for 30 L with a 3 L media bag (10x concentrated media)	5.74846.0030	10x
<b>ReadyStream® Media Bag GranuCult® Buffered Peptone Water</b> One bag for 100 L with a 10 L media bag (10x concentrated media)	5.74846.0100	3x
<b>ReadyTube® 9 BPW</b> ISO6579,6887,21528	1.46142.0020	20 x 9 mL
<b>ReadyTube® 225 BPW</b> ISO 6579,6887,21528	1.46404.0006	6 x 225 mL
<b>ReadyTube® 1000 BPW</b> ISO 6579,6887,21528	1.46403.0006	6 x 1 L
<b>MediaLab Buffered Peptone Water*</b> Ready-to-Use Buffered Peptone Water in 5L bag	0120214-2X5L	2 x 5 L
<b>MediaLab Buffered Peptone Water*</b> Ready-to-Use Buffered Peptone Water in 5L bag	0120214-55X5L	55 x 5L
<b>MediaLab Buffered Peptone Water*</b> Ready-to-Use Buffered Peptone Water in 3L bag	0120214-4X3L	4 x 3 L
<b>MediaLab Buffered Peptone Water*</b> Ready-to-Use Buffered Peptone Water in 3.375L bag	0120214-55X3.375L	55 x 3.375L

\*Available only in Western Europe countries. For a complete list, please contact us.

Merck KGaA  
Frankfurter Strasse 250  
64293 Darmstadt, Germany

[SigmaAldrich.com/culture-media](https://SigmaAldrich.com/culture-media)

To request more information, [SigmaAldrich.com/BPW-info](https://SigmaAldrich.com/BPW-info)



### To Place an Order or Receive Technical Assistance

Order/Customer Service: [SigmaAldrich.com/order](https://SigmaAldrich.com/order)

Technical Service: [SigmaAldrich.com/techservice](https://SigmaAldrich.com/techservice)

We have built a unique collection of life science brands with unrivalled experience in supporting your scientific advancements.

**Millipore® Sigma-Aldrich® Supelco® Milli-Q® SAFC® BioReliance®**

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