IFU

HARDY DIAGNOSTICS
A Culture of Service™

Instructions for Use

BUFFERED PEPTONE WATER

Cat. no. K107	Buffered Peptone Water, 16x125mm Tube, 9ml	20 tubes/box
Cat. no. K195	Buffered Peptone Water, 16x125mm Tube, 10ml	20 tubes/box
Cat. no. U142	Buffered Peptone Water, 500ml Polycarbonate Bottle, 225ml	10 bottles/box
Cat. no. U143	Buffered Peptone Water, 500ml Polycarbonate Bottle, 400ml	10 bottles/box
Cat. no. D080	Buffered Peptone Water, Dilu-Lok II™ Vial, 90ml	50 vials/case
Cat. no. D089	Buffered Peptone Water, Dilu-Lok II™ Vial, 99ml	50 vials/case

INTENDED USE

Hardy Diagnostics Buffered Peptone Water is intended to aid in the recovery of injured *Salmonella* species from foods and other samples prior to selective enrichment and isolation.

This product is not intended to be used for the diagnosis of human disease.

SUMMARY

Salmonella spp. that may be present in a food product can be sublethally injured by food processing techniques. These injured *Salmonella* spp. may not be recovered by direct selection techniques. Buffered Peptone Water is a non-selective preenrichment broth that promotes the recovery of those bacteria that may be injured.

Peptone in the media supplies nitrogenous compounds needed for the growth of bacteria. The phosphate salts provide buffering capacity to maintain the pH. Maintenance of the pH is important when attempting to recover injured bacteria, because a low pH can be detrimental to the repair of the damaged cells.

FORMULA

Ingredients per liter of deionized water.*

Peptone	10.0gm
Sodium Chloride	5.0gm
Disodium Phosphate	3.5gm
Monopotassium Phosphate	1.5gm

Final pH 7.2 +/- 0.2 at 25ºC.

* Adjusted and/or supplemented as required to meet performance criteria.

STORAGE AND SHELF LIFE

Storage: Upon receipt store at 2-30ºC away from direct light. Media should not be used if there are any signs of contamination, deterioration, discoloration, or if the expiration date has passed. Product is light and temperature sensitive. Protect from freezing.

The expiration date on the product label applies to the product in its intact packaging when stored as directed. The product may be used and tested up to the expiration date on the product label and incubated for the recommended incubation times as stated below.

Refer to the document "Storage" for more information.

PRECAUTIONS

This product may contain components of animal origin. Certified knowledge of the origin and/or sanitary state of the animals does not guarantee the absence of transmissible pathogenic agents. Therefore, it is recommended that these products be treated as potentially infectious, and handle observing the usual universal blood precautions. Do not ingest, inhale, or allow to come into contact with skin.

This product is for laboratory use only. It is to be used only by adequately trained and qualified laboratory personnel. Observe approved biohazard precautions and aseptic techniques. All laboratory specimens should be considered infectious and handled according to "standard precautions." Refer to the document "Guidelines for Isolation Precautions" from the Centers for Disease Control and Prevention.

For additional information regarding specific precautions for the prevention of the transmission of all infectious agents from laboratory instruments and materials, and for recommendations for the management of exposure to infectious disease, refer to CLSI document M29: *Protection of Laboratory Workers from Occupationally Acquired Infections.*

Sterilize all biohazard waste before disposal.

Refer to the document "Precautions When Using Media" for more information.

PROCEDURE

For the isolation of *Salmonella* spp.:[1,3]

1. Inoculate 50ml Buffered Peptone Water by adding 10gm of sample.

2. Incubate at 35ºC. for 18 hours.

3. Transfer 10ml of the incubated sample to 100ml of Tetrathionate Broth (Cat. no. K65) and incubate at 35ºC. Other selective enrichments may be used.[1,3]

4. After 24 and 48 hours, subculture to Brilliant Green Agar (Cat. no. G75), XLD Agar (Cat. no. G65) and/or HE Agar (Cat. no. G63) and incubate the plates for 18 hours at 35ºC. No one selective agar media is ideal in all situations. This justifies the use of two or more agar media.[1,3]

5. Examine plates for typical *Salmonella* spp. colonies.

Please consult listed references for complete procedures for the uses of Buffered Peptone Water, and for the recovery of *Salmonella* spp.[1-5]

INTERPRETATION OF RESULTS

Following incubation, examine the agar plates for growth and typical colony morphology.

LIMITATIONS

It is recommended that biochemical, immunological, molecular, or mass spectrometry testing be performed on colonies from pure culture for complete identification of bacteria and/or fungi.

Competing flora in the test sample can affect the recovery and may overgrow Salmonellae.

Refer to the document "Limitations of Procedures and Warranty" for more information.

MATERIALS REQUIRED BUT NOT PROVIDED

Standard microbiological supplies and equipment such as loops, other culture media, swabs, applicator sticks, incinerators, and incubators, etc., as well as serological and biochemical reagents, are not provided.

QUALITY CONTROL

Hardy Diagnostics tests each lot of commercially manufactured media using appropriate quality control microorganisms and quality specifications as outlined on the Certificate of Analysis (CofA) and the CLSI document M22-A3 *Quality Assurance for Commercially Prepared Microbiological Culture Media*. The following microorganisms are routinely used for testing at Hardy Diagnostics:

Test Organisms	Inoculation Method*	Incubation			Results
		Time	Temperature	Atmosphere	
Products K107, K195, U142, and U143:					
Salmonella enterica ATCC® 14028	A	18-24hr	35°C	Aerobic	Growth and typical colony morphology upon subculture to XLD Agar
Escherichia coli ATCC® 25922	A	18-24hr	35°C	Aerobic	Partial to complete inhibition upon subculture to XLD Agar
Products D080 and D089:					
Salmonella enterica ATCC® 14028	A	18-24hr	35°C	Aerobic	Growth and typical colony morphology upon subculture to XLD Agar

* Refer to the document "Inoculation Procedures for Media QC" for more information.

USER QUALITY CONTROL

End users of commercially prepared culture media should perform QC testing in accordance with applicable government regulatory agencies, and in compliance with accreditation requirements. Hardy Diagnostics recommends end users check for signs of contamination and deterioration and, if dictated by laboratory quality control procedures or regulation, perform quality control testing to demonstrate growth or a positive reaction and to demonstrate inhibition or a negative reaction, if applicable. Hardy Diagnostics quality control testing is documented on the certificate of analysis (CofA) available from Hardy Diagnostics Certificate of Analysis website. Also refer to the document "Finished Product Quality Control Procedures," and the CLSI document M22-A3 *Quality Assurance for Commercially Prepared Microbiological Culture Media* for more information on the appropriate QC procedures. See the references below.

PHYSICAL APPEARANCE

Buffered Peptone Water should appear clear and colorless to straw.

REFERENCES

1. U.S. Food and Drug Administration. *Bacteriological Analytical Manual.* Arlington, VA. http://www.fda.gov/Food/FoodScienceResearch/LaboratoryMethods/ucm2006949.htm

2. American Public Health Association. *Standard Methods for the Examination of Dairy Products,* APHA, Washington, D.C.

3. APHA Technical Committee on Microbiological Methods for Foods. *Compendium of Methods for the Microbiological Examination of Foods,* APHA, Washington, D.C.

4. Sadovski, A.Y. 1977. *J. Food Technology*; 12:85-91.

5. Juven, B.J., N. Cox, J.S. Bailey, J.E. Thomson, O.W. Charles, and J.V. Schutze. 1984. Recovery of *Salmonella* from artificially contaminated poultry feeds in non-selective and selective broth media. *Jour. of Food Prot.*; 47:299-302.

IFU-10095[B]

1430 West McCoy Lane, Santa Maria, CA 93455, USA
Phone: (805) 346-2766 ext. 5658
Fax: (805) 346-2760
Website: HardyDiagnostics.com
Email: TechnicalServices@HardyDiagnostics.com
Ordering Information

Distribution Centers:
California · Washington · Utah · Arizona · Texas · Ohio · New York · Florida · North Carolina

The Hardy Diagnostics manufacturing facility and quality management system is certified to ISO 13485.

HDQA 2207D [D]