

## Buffered Peptone Water HQ (ISO) (NCM0270)

NCM0270 500G, 5KG, 10KG & 25KG DCM Packs  
NCM3207 Ready-to-Reconstitute Media Bags  
NCM3402 3L Liquid Bag\*

\*Shipping restrictions may apply, enquire for regional availability

### **Intended Use**

Buffered Peptone Water HQ (ISO) is a non-selective pre-enrichment medium for the isolation of *Salmonella* spp. in food, animal feed and in environmental samples from the food production area as described in ISO 6579-1:2017. It can be used with Salmonella Selective Supplement (NCM4000) as part of the OBOP-S alternative workflow to ISO 6579-1:2017 and is not intended for use in the diagnosis of disease or other conditions in humans.

### **Description**

This pre-enrichment medium is designed to aid resuscitation of sub-lethally damaged *Salmonella* before introduction into a selective medium. Sublethal injury to *Salmonella* occurs in many food processes and this pre-enrichment step greatly increases recovery of these organisms.

Buffered Peptone Water HQ (ISO) can be used in conjunction with Salmonella Selective Supplement (NCM4000) as part of the OBOP-S alternative workflow to ISO 6579-1:2017. Salmonella Selective Supplement is provided separately to enable other analysis (i.e. enumeration tests) prior to selective enrichment for *Salmonella* spp.

Buffered Peptone Water HQ (ISO) follows the ISO formulation. Peptone provides a source of carbon, amino acids, vitamins and minerals. Sodium chloride maintains the osmotic balance and the phosphate components buffer the media to achieve pH 7.0.

### **Typical Formulation**

Peptone	10.0 g/L
Sodium Chloride	5.0 g/L
Disodium Hydrogen Phosphate (anhydrous)	3.6 g/L
Potassium Dihydrogen Phosphate	1.5 g/L

Final pH: 7.0 ± 0.2 at 25°C

Formula may be adjusted and/or supplemented as required to meet performance specifications.

**Supplement** (required for the OBOP-S alternative workflow)

NCM4000 - Salmonella Selective Supplement

### **Precaution**

Refer to SDS

### **Dehydrated Culture Medium Preparation**

1. Dissolve 20.1 g of the medium in one liter of purified water.
2. Mix thoroughly.
3. Autoclave at 121°C for 15 minutes.
4. If used for selective enrichment as part of the alternative workflow, add 1 mL of reconstituted Salmonella Selective Supplement (NCM4000) to 225 mL of prepared base.

### **Ready-to-Reconstitute Media Bag Preparation**

Please refer to the Instructions for Use for the range.

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# Technical Specification Sheet



## Test Procedure

- For detection of *Salmonella* spp. using the One Broth One Plate Salmonella method – Refer to the Technical Product Information Sheet
- For detection of *Salmonella* spp. (Water Quality) - Refer to ISO 19250:2010
- For detection and enumeration of Enterobacteriaceae - Refer to ISO 21528-1:2017
- For detection and enumeration and Serotyping of Salmonella - Refer to ISO 6579-1:2017
- For detection *Cronobacter* spp. - Refer to ISO 22964:2017
- For detection of STEC - Refer to ISO/TS 13136:2012

## Quality Control Specifications

**Dehydrated Appearance:** Powder is homogeneous, free flowing and beige.

**Prepared Appearance:** Prepared medium is clear with no precipitate and amber.

**Expected Cultural Response:** Cultural response in Buffered Peptone Water HQ (ISO), incubated aerobically at  $37 \pm 1^\circ\text{C}$  and examined for growth after 16 - 20 hours incubation. With Salmonella Selective Supplement, cultures are incubated aerobically at  $41.5 \pm 1^\circ\text{C}$  for  $18 \pm 2$  hrs followed by subculture onto CASE (NCM1006 or NCM3008), incubated aerobically at  $37 \pm 1^\circ\text{C}$  and examined for growth at  $24 \pm 3$  hrs.

<u>MICROORGANISM</u>	<u>ATCC</u>	<u>APPROX. INOCULUM (CFU)</u>	<u>EXPECTED RESULTS</u>
Pre-enrichment for <i>Salmonella</i> and <i>Enterobacteriaceae</i> detection			
<i>Escherichia coli</i>	25922	10-100	Growth
<i>Escherichia coli</i>	8739	10-100	Growth
<i>Salmonella</i> Enteritidis	13076	10-100	Growth
<i>Salmonella</i> Typhimurium	14028	10-100	Growth
<i>Cronobacter sakazakii</i>	29544	10-100	Growth
<i>Cronobacter muytjensii</i>	51329	10-100	Growth
Diluent for enumeration of microorganisms and <i>L. monocytogenes</i>			
<i>Escherichia coli</i>	25922	$>10^4$	T <sub>1</sub> plate counts w/in $\pm 30\%$ of counts for T <sub>0</sub>
<i>Escherichia coli</i>	8739	$>10^4$	T <sub>1</sub> plate counts w/in $\pm 30\%$ of counts for T <sub>0</sub>
<i>Staphylococcus aureus</i>	25923	$>10^4$	T <sub>1</sub> plate counts w/in $\pm 30\%$ of counts for T <sub>0</sub>
<i>Listeria monocytogenes</i>	13932	$>10^4$	T <sub>1</sub> plate counts w/in $\pm 30\%$ of counts for T <sub>0</sub>
<i>Listeria monocytogenes</i>	35125	$>10^4$	T <sub>1</sub> plate counts w/in $\pm 30\%$ of counts for T <sub>0</sub>
Enrichment with Salmonella Selective Supplement			
<i>Salmonella</i> Typhimurium	14028	$<100$	Good Growth on CASE
<i>Salmonella</i> Enteritidis	13076	$<100$	Good Growth on CASE

The organisms listed are the minimum that should be used for quality control testing.

## Results

Growth is indicated by turbidity.

## Expiration

Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

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## Limitation of the Procedure

Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.

## Storage

Store dehydrated culture media (NCM0270) at 2-30°C away from direct sunlight. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

Store ready-to-reconstitute media bags as supplied (NCM3207) at 10-25°C away from direct sunlight. Once reconstituted store at 10-25°C away from direct sunlight for up to 5 days (providing asepsis is maintained).

Store ready to use 3L liquid bags (NCM3402) at 2-25°C away from direct sunlight (please handle with care, do not drop from a height).

## References

1. ISO 19250:2010 Water quality -- Detection of *Salmonella* spp.
2. ISO 21528-1:2017 Microbiology of the food chain -- Horizontal method for the detection and enumeration of Enterobacteriaceae -- Part 1: Detection of Enterobacteriaceae
3. ISO 6579-1:2017 Microbiology of the food chain – Horizontal method for the detection, enumeration and serotyping of Salmonella
4. ISO 22964:2017 Microbiology of the food chain -- Horizontal method for the detection of *Cronobacter* spp.
5. ISO/TS 13136:2012 Microbiology of food and animal feed — Real-time polymerase chain reaction (PCR)-based method for the detection of food-borne pathogens — Horizontal method for the detection of Shiga toxin-producing Escherichia coli (STEC) and the determination of O157, O111, O26, O103 and O145 serogroups

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