



# PRODUCT SPECIFICATION SHEET

## Tryptone Water Broth w/BCP (DM274)

### Intended Use

Tryptone Water Broth w/BCP (DM274) is recommended for cultivation of *Salmonella* species from food stuff.

### Product Summary and Explanation

Salmonellosis is one of the most important and most frequently reported human foodborne diseases worldwide.<sup>(1)</sup> Outbreaks have been associated with the consumption of pork and pork products,<sup>(2, 3)</sup> broiler chickens,<sup>(4)</sup> and other animals. Environmental sources include animal feed, litter and dust from hen houses, and animal faeces. The process of isolating *Salmonella* from food is often difficult. The examination of various types of food products for *Salmonella* requires methods different from those used in clinical laboratories. The need for such method is due to the generally low numbers of Salmonellae in foods, accompanied by larger numbers of other contaminating bacteria and the frequently poor physiological state of these pathogens following exposure to stressful conditions during food processing or storage. Pre-enrichment is necessary to permit the detection of low numbers of *Salmonella* or injured *Salmonella*. Although qualitative recovery of food borne *Salmonella* is generally sought, the analytical approach used in conventional methods can be adapted for the enumeration of *Salmonella* by MPN techniques.<sup>(5)</sup> Injured *Salmonella* are resuscitated in non-selective broth medium, which facilitates detection of sublethally injured *Salmonella*. The ideal pre-enrichment broth should provide for the repair of cell damage, dilute toxic or inhibitory substances and be of such nutritive capacity so as to favour a better growth of *Salmonella*. In the analysis of foods for *Salmonella*, the pre-enriched cultures are transferred to an enrichment broth and further streaked on one or more selective media. Tryptone Water Broth w/BCP is recommended and prepared as per APHA<sup>(6)</sup> for cultivating *Salmonella* species from foods.

### Principles of the Procedure

Tryptose Blood Agar Base w/ Yeast Extract contains casein enzymic hydrolysate and yeast extract provide the essential nitrogenous compounds, vitamin B complex and other growth nutrients for the growth of *Salmonellae*. Dextrose is the fermentable carbohydrate. Bromocresol purple is the pH indicator. Dipotassium phosphate is the buffering agent.

### Formula / Liter

Ingredients	Gms / Liter
Casein enzymic hydrolysate	10.00
Dextrose	5.00
Dipotassium phosphate	1.25
Yeast extract	1.00
Bromocresol purple	0.04
Final pH: 7.0 ± 0.2 at 25°C	
Formula may be adjusted and/or supplemented as required to meet performance specifications	

### Precautions

1. For Laboratory Use only.
2. IRRITANT. Irritating to eyes, respiratory system, and skin.





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### Directions

1. Suspend 17.29 grams of the medium in one liter of distilled water.
2. Heat if necessary to dissolve the medium completely.
3. Dispense into desired containers.
4. Autoclave at 121°C, 15 psi pressure, for 15 minutes / validated cycle.

### Quality Control Specifications

Dehydrated Appearance	Cream to pale green homogeneous free flowing powder
Prepared Medium	Purple coloured clear solution without any precipitate
Reaction of 1.73% Solution	pH : 7.0 ± 0.2 at 25°C
Gel Strength	Not Applicable

**Expected Cultural Response:** Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Sr. No.	Organisms	Results to be achieved		
		Inoculum (CFU)	Growth w/o blood	Colour of Medium
1.	<i>Salmonella enteritidis</i> ATCC 13076	50 - 100	good-luxuriant	yellow
2.	<i>Salmonella typhimurium</i> ATCC 14028	50 - 100	good-luxuriant	yellow

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

### Test Procedure

Refer to appropriate references for standard procedures.

### Results

Refer to appropriate references and test procedures for interpretation of results.

### Storage

Store the sealed bottle containing the dehydrated medium at 10 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light.

### Expiration

Refer to the 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.

### Limitations of the Procedure

1. For identification, organisms must be in pure culture. Morphological, biochemical and/or serological tests should be performed for final identification.
2. Consult appropriate texts for detailed information and recommended procedures.

### Packaging

Product Name : Tryptone Water Broth w/BCP (DM274)

Product Code : DM274

Available Pack sizes : 500gm





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## References

1. Baird Parker. 1990. The Lancet. 336:1231.
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4. Proietti, Pedrazzoli, Bosco, Galli, Canali and Franciosi. 2006. Presented at the Twelfth European Poultry Conference, Verona, Italy, 10 to 14 Sept. 2006.
5. Downes F. P. and Ito K., (Ed.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., American Public Health Association, Washington, D.C.
6. Ray B. Jr., Jezeski J. J. and Busta F. F., 1972, J. Milk food Technol.,35:670.

## Further Information

For further information please contact your local MICROMASTER Representative.



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