

CM 21569 - SALMONELLA SELECTIVE SECONDARY BROTH

INTENDED USE

For selective enrichment and isolation of Salmonellae from food.

PRODUCT SUMMARY AND EXPLANATION

Salmonella Selective Secondary Broth favours the unrestricted growth of enteric pathogens by selectively inhibiting the coliforms. It is based upon the formulation of Tetrathionate Broth Base which was first formulated by Mueller. Tetrathionate Broth Base, Hajna is the modification formulated by Hajna and Damon for the selective enrichment of Salmonellae from foodstuffs. Enrichment is a two-step process, utilizing a primary enrichment media base supplemented by a secondary enrichment media.

COMPOSITION

Ingredients	Gms / Ltr
Meat peptone	9.000
Yeast extract	2.000
Case Peptone	9.000
D-Mannitol	2.500
Dextrose (Glucose)	0.500
Sodium deoxycholate	0.500
Brilliant green	0.005
Potassium Tetrathionate	10.000
Gelatin peptone	10.000
Sodium carbonate	0.400
Calcium carbonate	25.000
Salt mixture	5.000

PRINCIPLE

Meat peptone, Case Peptone, gelatin peptone and yeast extract are the sources of carbon, nitrogen, long chain amino acids, vitamins and minerals. The selectivity depends on the ability of salt mixture and tetrathionate to suppress commensal coliform organisms. Sodium deoxycholate and brilliant green inhibit gram-positive organisms. Dextrose and Mannitol are the carbohydrates sources. Calcium carbonate neutralizes the acidic tetrathionate decomposition products. After enrichment of the sample, streak on the plates of Brilliant Green Agar, MacConkey Agar, Bismuth Sulphite Agar for further confirmation.

INSTRUCTION FOR USE

Dissolve 73.91 grams in 1000 ml distilled water.

Heat just to boiling or place in flowing steam for 30 minutes, do not autoclave.

Cool to 45-50°C. Mix well and dispense 10 ml amounts in sterile tubes.

Note: Due to the presence of calcium carbonate, the prepared medium forms opalescent solution with a white precipitate.

QUALITY CONTROL SPECIFICATIONS



Appearance of Powder : Cream to light green homogeneous free flowing powder
 Appearance of prepared medium : Light green coloured opalescent solution with white precipitate, on standing the precipitate settles down.
 pH (at 25°C) : 7.0

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Color of the colony	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Fair-good	Pink-red with Bile precipitate	35-37°C	18-24 Hours
Salmonella Typhi	6539	50-100	Good-luxuriant	Colourless	35-37°C	18-24 Hours
Salmonella Enteritidis	13076	50-100	Good-luxuriant	Colourless	35-37°C	18-24 Hours
Salmonella Typhimurium	14028	50-100	Good-luxuriant	Colourless	35-37°C	18-24 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

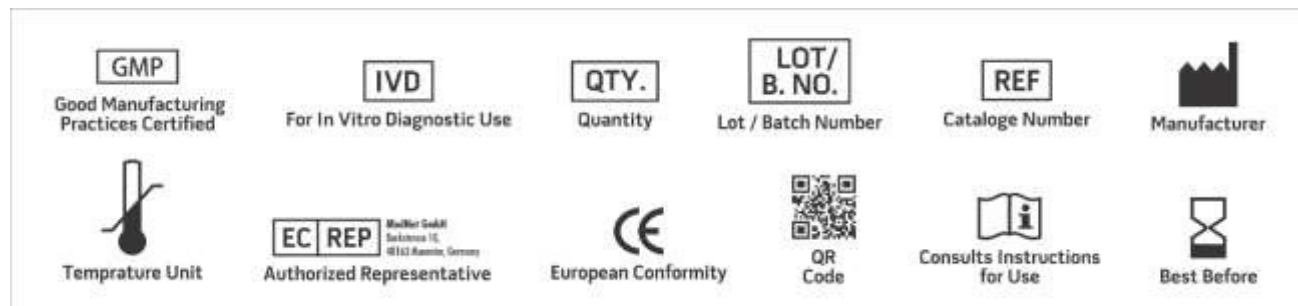
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

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- Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
- Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock, D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1
- MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore.
- Mueller L., 1923, C.R. Soc. Biol. (Paris), 89:434.
- Pollock M. R. and Knor R., 1943, Biochem J., 37:476.



7. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th ed., APHA, Washington, D.C.
8. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

*For LabUse Only