TM 2365 – TETRATHIONATE CV ENRICHMENT BROTH

INTENDED USE

For the selective enrichment of Salmonellae from meat and foodstuff.

PRODUCT SUMMARY AND EXPLANATION

The examination of various types of food products for presence of *Salmonella* requires methods different from those used in clinical laboratories. The need for such methods is due to the generally low numbers of *Salmonella* in foods and the frequently poor physiological state of these pathogens following exposure to stressful conditions during food processing or storage. Tetrathionate CV Enrichment Broth is used for the selective enrichment and isolation of *Salmonella* from meat and foodstuffs.

Tetrathionate Broth Base was originally described by Mueller and he found that the medium selectively inhibits coliforms and permits unrestricted growth of enteric pathogens. Muellers medium was subsequently modified by Kauffman and Knox in which they obtained more number of isolates. Tetrathionate Crystal Violet Enrichment Broth is prepared as per the formulation described by Preuss and is used for the selective enrichment of Salmonellae from meat and foodstuffs. It complies with the specifications prescribed in the German Meat Inspection Law. After enrichment of the sample, streak on the plates of Brilliant Green Agar, MacConkey Agar, Bismuth Sulphite Agar for further confirmation.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	4.300
Peptic digest of animal tissue	4.300
Sodium chloride	6.400
Potassium tetrathionate	20.000
Crystal violet	0.005

PRINCIPLE

Casein enzymic hydrolysate and peptic digest of animal tissue are the sources of carbon, nitrogen, vitamins and minerals. Sodium deoxycholate and brilliant green and crystal violet inhibit gram-positive organisms. Potassium tetrathionate acts as a selective agent. Sodium chloride maintains the osmotic balance of the medium.

INSTRUCTION FOR USE

- Suspend 35 grams in 1000 ml distilled water.
- Heat if necessary to dissolve the medium completely.
- Dispense in tubes. DO NOT AUTOCLAVE.

Note: The medium should be used on the day of preparation as the prepared medium is not stable.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow may have purple tinge homogeneous free flowing powder.
Appearance of prepared medium	: Blue to light blue coloured clear solution without any precipitate
pH (at 25°C)	: 6.5±0.2

INTERPRETATION

Cultural characteristics observed after incubation Recovery is done on Brilliant Green Agar.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth on Brilliant Green Agar	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	None-poor	35-37°C	18-24 Hours
Salmonella Typhimurium	14028	50-100	Good-luxuriant	35-37°C	18-24 Hours
Salmonella Enteritidis	13076	50-100	Good-luxuriant	35-37°C	18-24 Hours
Staphylococcus aureus	25923	>=10^3	Inhibited	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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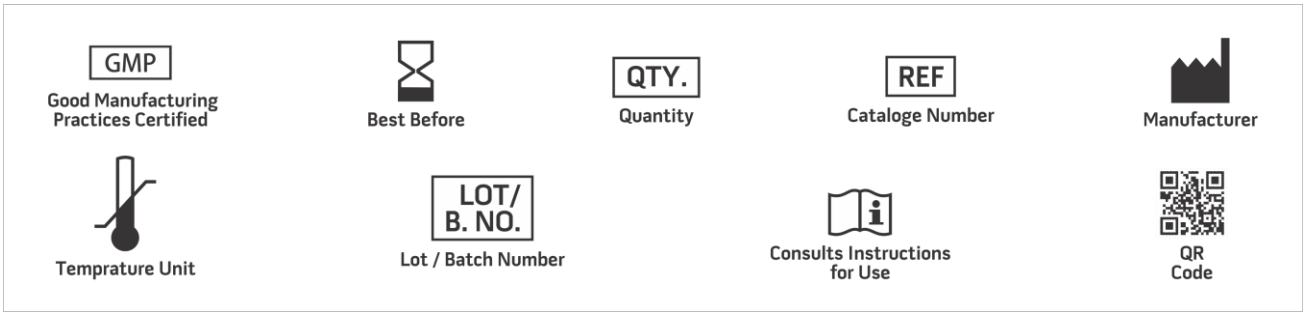
3.Knox R., Gell P. and Pollack M., 1942, J. Pathol. Bacteriol, 54:469.
4.Preuss H., 1949, Z. Hyg., 129:187.
5.MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore.
6.Deutsches Fleischbeschaugesetz : Anlage 1zu :20 Abs., 4.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.
***For Lab Use Only**

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