TM 2240 - MANNITOL SELENITE BROTH W/ BRILLIANT GREEN (DOUBLE PACK)

INTENDED USE

For enrichment of Salmonellae from faeces, food- stuffs and other materials.

PRODUCT SUMMARY AND EXPLANATION

Selenite-containing media for the enrichment of *Salmonella* was first described by Guth. This medium was further modified by Leifson for the enrichment and isolation of *Salmonella* from clinical specimens. Mannitol Selenite Broth w/ Malachite Green is prepared as per the formulation of Stocks and Osborne. This medium is recommended for isolation or enrichment of *Salmonella* from small inoculate. Also the strong buffering capacity of the medium prevents damage to cultures due to over-acidification when mannitol is fermented.

COMPOSITION

Ingredients	Gms / Ltr
Part I	
Meat peptone	5.000
Yeast extract	5.000
Sodium taurocholate	1.000
Brilliant green	0.005
Potassium dihydrogen phosphate	3.400
Dipotassium hydrogen phosphate	4.350
Mannitol	5.000
Part II	
Sodium selenite	4.000

PRINCIPLE

Meat peptone and yeast extract provides amino acids and other nitrogenous substances to *Salmonella.* Mannitol serves as fermentable carbohydrate, a sugar alcohol which also helps in maintaining a uniform pH along with the phosphates. Phosphates also lessen the toxicity of selenite.

Do not incubate longer than 24hours as the inhibitory effect of selenite is reduced after 6-12 hours' incubation. Subculture broth from the upper third of the broth column to greater or lesser inhibitory selective agars.

INSTRUCTION FOR USE

- Dissolve 4.0 grams of Part II in 1000 ml. distilled water. Add 24.0 grams of Part I. Mix well.
- If desired add 0.5g/l sodium sulpha pyridine, warm to dissolve the medium completely.
- Dispense as desired and sterilize in a boiling water bath or free flowing steam for 10 minutes. Do not autoclave.
- Excessive heating is detrimental.
- Discard the prepared medium if large amount of selenite is reduced (indicated by red precipitate at the bottom of tube/bottle).

Caution: Sodium hydrogen selenite (Sodium biselenite) is very toxic and corrosive agent and causes teratogenicity. Handle with great care. If there is contact with skin, wash immediately with lot of water.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Part I: Cream to pale green homogeneous free flowing powder.
Part II: White to cream homogeneous free flowing powder.

Appearance of prepared medium : Green coloured Opalescent to slightly hazy solution of complete medium.

pH (at 25°C) : 7.0±0.2

INTERPRETATION

Cultural characteristics observed when subcultured on MacConkey Agar, after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Colour of Colony	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	None	Pink with bile precipitate	35-37°C	18-24 Hours
Salmonella Enteritidis	13076	50-100	Luxuriant	Colourless	35-37°C	18-24 Hours
Salmonella Paratyphi B	8759	50-100	Luxuriant	Colourless	35-37°C	18-24 Hours
Salmonella Typhi	6539	50-100	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.

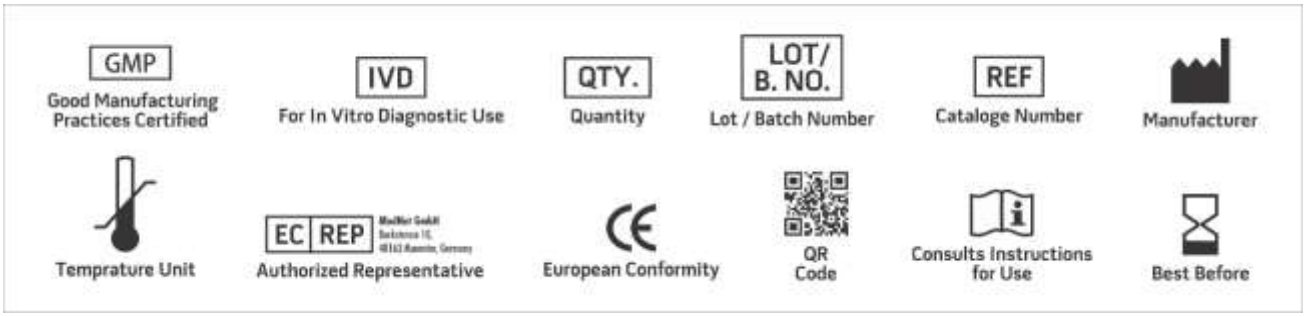
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Guth F., 1916, Zentralbl. Bakteriol. Parasitenk. Indektionskr. Hyg. Abt. 77:487 2.
2. Leifson E., 1936, Am. J. Hyg., 24(2):423.
3. Stockes J. L. and Osborne W. W., 1955, Appl. Microbiol., 3-4,217
4. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore



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

***For Lab Use Only**

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