

## TM 1454 - SELENITE MANNITOL BROTH (MANNITOL SELENITE BROTH) (DOUBLE PACK)

### INTENDED USE

For selective enrichment of Salmonellae from clinical samples.

### 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 is a selective enrichment medium, more or less similar to Leifson enrichment medium, described by Hobbs and Allison for the isolation of *Salmonella*. Typhi and *Salmonella* Paratyphi B from clinical specimens. Mannitol Selenite Broth can also be used for the selective enrichment of *Salmonella* from water and foodstuffs.

### COMPOSITION

Ingredients	Gms / Ltr
<b>Part I</b>	
Peptic digest of animal tissue	5.000
Mannitol	4.000
Sodium phosphate	10.000
<b>Part II</b>	
Sodium hydrogen selenite(Sodium biselenite)	4.000

### PRINCIPLE

Peptic digest of animal tissue provides amino acids and other nitrogenous substances to Salmonellae. Mannitol serves as fermentable carbohydrate, a sugar alcohol which also helps in maintaining a uniform pH along with sodium phosphate. Sodium phosphate also lessens the toxicity of selenite. Do not incubate longer than 24 hours as the inhibitory effect of selenite is reduced after 6-12 hrs 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 19.0 grams of Part I. Warm to dissolve the medium completely.
- Distribute in sterile test tubes 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 the tube).

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

### QUALITY CONTROL SPECIFICATIONS

<b>Appearance of Powder</b>	: Part I: Cream to yellow homogeneous free flowing powder Part II: White to cream homogeneous free flowing powder.
<b>Appearance of prepared medium pH (at 25°C)</b>	: Light yellow coloured clear to slightly opalescent solution of complete medium. : 7.1±0.2



## INTERPRETATION

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

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Color of the colony	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	Little-none	Pink with bile precipitate	35-37°C	18-24 Hours
<i>Salmonella</i> Enteritidis	13076	50-100	Good-luxuriant	Colourless	35-37°C	18-24 Hours
<i>Salmonella</i> Paratyphi B	8759	50-100	Good-luxuriant	Colourless	35-37°C	18-24 Hours
<i>Salmonella</i> Typhi	6539	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

- Guth F., 1916, Zentralbl. Bakteriol. Parasitenk. Indektionskr. Hyg. Abt. 77:487 2. Leifson E., 1936, Am. J. Hyg., 24(2):423.
- Hobbs B. C. and Allison V. D., 1945, Mon. Bull. Min. Hlth. Publ. Hlth. Lab. Serv., 4:12.
- MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore



 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative <small>MedWet GmbH Buckelstraße 10 48163 Ahaus, Germany</small>	 European Conformity	 QR Code	 Consults instructions for Use	 Best Before

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

**\*For Lab Use Only**  
**Revision: 08 Nov., 2019**