TM 294-SELENITE CYSTINE BROTH (FLUID SELENITE CYSTINE BROTH) (DOUBLE PACK) (ISO 6579:1993)

INTENDED USE

An enrichment medium for isolation of *Salmonella* species from food, dairy and clinical samples.

PRODUCT SUMMARY AND EXPLANATION

Selenite Cystine Broth is a modification of Leifsons formula with added cystine by North and Bartram. The formulation corresponds to that of recommended by the AOAC, for the detection of Salmonellae in foodstuff particularly egg products. It is included by APHA, USP. Recently ISO Committee also recommends this medium for the detection of Salmonellae. Selenite Cystine Broth is useful for detecting Salmonella in the non-acute stages of illness when organisms occur in low numbers in test samples and for epidemiological studies to enhance the detection of low numbers of organisms from asymptomatic or convalescent patients.

COMPOSITION

Ingredients	Gms / Ltr
Part- I	
Sodium phosphate	10.000
Casein enzymatic hydrolysate	5.000
Lactose	4.000
L-Cystine	0.010
Part-II	
Sodium selenite	4.000

PRINCIPLE

Medium contains Casein enzymatic hydrolysate as a source of nitrogen & carbon. Lactose is a fermentable carbohydrate source. L-Cystine lowers the toxicity of Sodium selenite and adds additional organic Sulphur. Sodium selenite inhibits the gram-positive bacteria and most enteric gram-negative bacteria, except Salmonella. As Selenite is reduced by Salmonella species the pH shifts towards alkali, the acid produced during lactose fermentation helps in maintaining a neutral pH.

INSTRUCTION FOR USE

- Dissolve 4.0 grams of Part II in 1000ml purified/distilled water.
- Add 19.01 grams of Part I.
- Mix well.
- Warm to dissolve the medium completely.
- Distribute in sterile test tubes.
- Sterilize in a boiling water bath or free flowing steam for 10 minutes.

Note: 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 bi-selenite) is very toxic, corrosive agent and causes teratogenicity and hence should be handled with great care. Upon contact with skin, wash immediately with a lot of water

QUALITY CONTROL SPECIFICATIONS

Appearance of Dehydrated powder -

Part I	:	Off-white to light yellow.
Part II	:	White to cream, homogeneous free flowing powder
Appearance of Prepared medium	:	Light yellow colored, clear to slightly opalescent solution
pH (at 25°C)	:	7.0 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation when sub cultured on MacConkey agar (TM 379).

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of Colony	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	None-Poor	20-30%	Pink with bile precipitation	35-37°C	18-24 Hours
Salmonella typhi	19430	50-100	Luxuriant	>=50%	Colourless	35-37°C	18-24 Hours
Salmonella typhimurium	14028	50-100	Luxuriant	>=50%	Colourless	35-37°C	18-24 Hours

PACKAGING:

In 100 & 500 gm packaging size.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°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 powder show evidence of microbial contamination, discoloration, drying, or 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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6. United States Pharmacopoeia, 2009 U.S. Pharmacopoeial Convention, Inc., Rockville, MD.
7. International Organization for Standardization (ISO), 1993, Draft ISO/DIS 6579.
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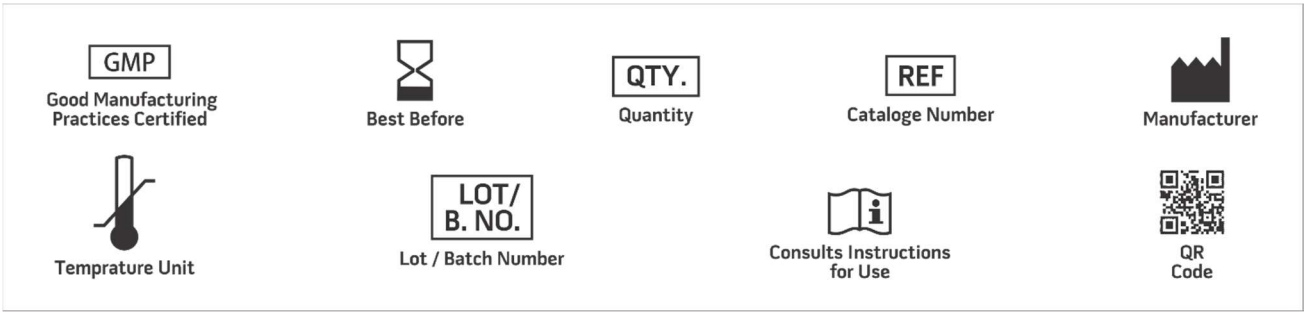

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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