

SORBITOL PEPTONE BROTH AND BILE SALTS ISO 10273

CAT N°: 1298

For the Selective enrichment of *Yersinia enterocolitica*

FORMULA IN g/l

Sorbitol	10.0	Sodium Chloride	5.0
Disodium Phosphate	8.23	Bile Salts	1.50
Enzymatic Digest of Casein	5.0	Monosodium Phosphate	1.20

Final pH 7.6 ± 0.2 at 25°C

PREPARATION

Suspend 31 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Dispense into appropriate containers and sterilize in autoclave at 121°C for 15 minutes. The prepared medium should be stored at 2-8°C. The color of the prepared medium is amber.

The dehydrated medium should be homogeneous, free-flowing and beige in color. If there are any physical changes, discard the medium.

USES

SORBITOL PEPTONE BROTH AND BILE SALTS is a medium recommended by ISO 10273 for the selective enrichment of *Yersinia enterocolitica* in food samples. Outbreaks of gastroenteritis associated with *Yersinia enterocolitica* are increasing. Contaminated food products such as pork, beef, and raw and processed milk have been identified as sources of infection.

Enzymatic Digest of Casein provides nitrogen, vitamins, minerals and amino acids essential for growth. Sodium chloride supplies essential electrolytes for transport and osmotic balance. Potassium phosphates act as a buffer system. Sorbitol is the fermentable carbohydrate providing carbon and energy.

Inoculate and incubate at 35 ± 2°C for 24 hour under anaerobic conditions.

Inoculate and incubate at 22-25 °C for 48- 72 hours with agitation, or for 5 days without agitation. Once incubated, inoculate the surface of a CIN agar (Cat. 1126) plate to obtain well-separated colonies or using a sterile pipette transfer 0.5 ml into 4.5 ml of potassium hydroxide solution and mix. After 20 ± 5 s, immediately inoculate the surface of a CIN agar (Cat. 1126) plate to obtain well-separated colonies.

MICROBIOLOGICAL TEST

The following results were obtained from type cultures in the performance of the medium after incubation at a temperature of 22-25 °C and observed after 2,3 and 5 days.

Microorganisms	Growth
<i>Yersinia enterocolitica</i> ATCC 23715	Good
<i>Yersinia enterocolitica</i> ATCC 9610	Good
<i>Escherichia coli</i> ATCC 25922	Good
<i>Pseudomonas aeruginosa</i> ATCC 27853	Null

According ISO 11133: 3-5 days/25°C (Productivity, Selectivity and Specificity)

Microorganismos	Inoculo (cfu/ml)	Productivity Semiquantitative	Selectivity Semiquantitative	Specificity
<i>Yersinia enterocolitica</i> ATCC 23715	10 ³	> 10		pink
<i>Pseudomonas aeruginosa</i> ATCC 27853	10 ⁴		Inhibited	

Media Productivity and Specificity (SSDC)
Media Selectivity.- (TSA)

BIBLIOGRAPHY

ISO 10273 Microbiology of food and animal feeding stuffs — Horizontal method for the detection of presumptive pathogenic *Yersinia enterocolitica*

STORAGE

Once opened keep powdered medium closed to avoid hydration.

