

CM 21,355-PEPTONE SORBITOL BROTH (W/Bile Salt) (ISO 10273:2017)

INTENDED USE

For selective enrichment of *Yersinia enterocolitica* from dairy products.

PRODUCT SUMMARY AND EXPLANATION

Peptone Sorbitolis recommended for the selective enrichment of *Y. enterocolitica*. Swine are recognized as major reservoirs of *Y. enterocolitica* in nature. *Yersinia enterocolitica* is capable of growth at refrigeration temperatures, therefore measures to prevent post pasteurization contamination must be taken to prevent the proliferation of *Y. enterocolitica* in pasteurized milk. The composition and performance criteria of this medium are as per the specifications laid down in ISO 10273:2017.

COMPOSITION

Ingredients	Gms / Ltr
Part-I	
Disodium phosphate	8.230
Casein enzymatic digest	5.000
Sodium chloride	5.000
Bile salts	1.500
Monosodium phosphate	1.200
Part-II	
Sorbitol	10.000

PRINCIPLE

Medium contains Enzymatic Digest of Casein which provides nitrogen, vitamins, minerals and amino acids essential for growth. Sodium chloride supplies essential electrolytes for transport and osmotic balance. Phosphates act as a buffer system. The pH of the medium is slightly alkaline as *Yersinia* species are tolerant to dilute alkali. Sorbitol is the fermentable carbohydrate providing carbon and energy. Bile salt inhibit majority of the gram-positive organisms.

INSTRUCTION FOR USE

- ☐ Dissolve 10.00 grams of Part-I in 1000ml purified/distilled water.
- ☐ Add 21.00 grams of Part II to it. Mix well.
- ☐ Gently heat to boiling with swirling to dissolve the medium completely.
- ☐ Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.
- ☐ Cool to 45-50°C.
- ☐ Dispense as desired.

QUALITY CONTROL SPECIFICATIONS

Appearance of Dehydrated powder

Part I : Cream to yellow, homogeneous free flowing powder

Part II : White

Appearance of Prepared medium : Light yellow colored, clear solution



pH (at 25°C) : 7.6 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Sorbitol utilization	Incubation Temperature	Incubation Period
<i>Yersinia enterocolitica</i>	27729	50-100	Luxuriant	Positive reaction	10°C	10 Days
<i>Yersinia pseudotuberculosis</i>	29833	50-100	Luxuriant	Negative reaction	10°C	10 Days

PACKAGING

In 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

1. Francis D. W., Spaulding P.L., Lovett J., 1980, Appl. Environ. Microbiol. 40:174-176.
2. Doyle M.P., Hugdahl M.B., Taylor S. L., 1981, Appl. Environ. Microbiol. 42:661-666.
3. Wehr H.M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.
4. Aulisio C. C. G., Mehlman I.J. and Sanders A. C., 1980, Appl. Environ. Microbiol., 39:135.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

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

*For Lab Use Only

