

BIOMARK Laboratories-INDIA

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TECHNICAL SHEET

B251	MANNITOL SALT BROTH				
Formula					
Ingredients:		gms/lit.			
Proteose peptone		10.00			
Meat Extract B#		1.00			
Sodium chloride		75.00			
D-Mannitol		10.00			
Phenol red		0.025			
#- Equivalent to Beef extract					
Final pH (at 25°C): 7.4 ± 0.2					
Directions :					
Suspend 96.02 grams in 1000 ml distilled water. Heat if necessary, to dissolve the medium completely. Dispense as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Note: This product contains 7.5% sodium chloride as one of its ingredients. On repeated exposure to air and absorption moisture sodium chloride has tendency to form lumps, therefore we strongly recommend storage in tightly closed containers in dry place away from bright light.					
Principle :					
The medium contains Meat Extract and proteose peptone which makes it very nutritious as they provide essential growth factors and trace nutrients. Many other bacteria except Staphylococci are inhibited by 7.5% sodium chloride. Mannitol is the fermentable carbohydrate source. The differential action of the medium is attributed to D-Mannitol Staphylococcus aureus ferments mannitol to produce yellow coloured medium. Most coagulase-negative species of Staphylococci and Micrococci do not ferment mannitol and therefore the medium remains red in colour. The colour of the medium is due to the reactivity of phenol red to the pH of the medium; phenol red is red at pH 8.4 and yellow at 6.8. Presumptive Staphylococcus showing yellow coloured medium should be further tested for production of coagulase.					
QC Tests – (I) Dehydrated Medium					
Colour :		Light pink			
Appearance :		Homogeneous Free Flowing powder			
(II) Rehydrated medium					
pH (post autoclaving/heating) :		7.4 ± 0.2			
Colour (post autoclaving/heating) :		Orangish red to red			
Clarity (post autoclaving/heating) :		Red coloured clear solution in tubes			
(III) Q.C. Test Microbiological					
Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.					
MICROORGANISM (ATCC)		GROWTH		COLOUR OF MEDIUM	
Staphylococcus aureus (25923)		Good -Luxuriant		Yellow	
Staphylococcus epidermidis (12228)		Fair to good		Red	
Escherichia coli (25922)		Inhibited		---	
Precautions :		1. For Laboratory Use. 2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.			
Limitations :		1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.			
Use :		Used for the selective isolation of presumptive pathogenic Staphylococci.			
Storage :		Dehydrated medium- below 30°C Prepared medium- Between 2 to 8°C.			
Packing :		500 gm. bottle			
Product profile:		Reconstitution		Quantity on Preparation (500g)	
		pH (25°C)		Supplement	
		Sterilization			
B251	96.02 g/l	5.207 L	7.4 ± 0.2	Nil	121°C / 15 minutes

Disclaimer:

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related BIOMARK LABORATORIES publications.

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