

TECHNICAL SHEET

B318	SHAPTON MEDIUM					
Formula						
Ingredients :		gms/lit.				
Peptic digest of animal tissue		5.00				
Casein enzymic hydrolysate		2.50				
Meat extract B#		3.00				
Yeast extract		1.00				
Dextrose		1.00				
Bromo cresol purple		0.025				
Agar		15.00				
# Equivalent to Beef extract						
Final pH (at 25°C) : 7.4 ± 0.2						
Directions :						
Suspend 27.53 gms.in 1000ml. distilled water. Soak for 5 minutes. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.						
Principle :						
Bacillus stearothermophilus is a thermophile that is widely distributed in soil, hot springs,ocean sediment, and is a cause of spoilage in food products. It is commonly used as a challenge organisms for steam sterilization validation studies. Flat sour spoilage occurs chiefly in low acid foods, such as peas, corn and lima beans but can also occur in medium acid foods such as spinach, green beans etc. Shapton and Hindes formulated the medium for the enumeration of spores of Bacillus stearothermophilus, which cause flat sour spoilage in canned foods with pH more than 4.5. Casein enzyme hydrolysate,peptic digest of animal tissue , beef extract and yeast extract in the medium provide carbon,nitrogen, vitamins and minerals required for bacterial metabolism. Dextrose is the fermentable carbohydrate,Bromocresol purple is the pH indicator,indicating dextrose fermentation visualized as a colour change from purple to yellow.						
QC Tests - (I)Dehydrated Medium						
Colour :		Light yellow to grey				
Appearance :		Homogeneous Free Flowing powder				
(II)Rehydrated medium						
pH (post autoclaving/heating) :		7.4 ± 0.2				
Colour (post autoclaving/heating) :		Light purple				
Clarity (post autoclaving/heating) :		Clear to slightly opalescent				
(III)Q.C. Test Microbiological						
Cultural characteristics observed after 18 - 48 hrs at 55°C.						
MICROORGANISM (ATCC)		GROWTH	COLOUR OF COLONY			
Bacillus stearothermophilus (7953)		Luxuriant	Yellow			
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 :		For enumeration of spores of Bacillus stearothermophilus which causes flat sour spoilage in canned food with pH more than 4.5.				
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
B318	27.53g/l	18.162L	7.4 ± 0.2	NIL	121°C / 15 minutes	

Refer disclaimer Overleaf

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 BIOMARKLABORATORIES publications.

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