

**TECHNICAL SHEET**

<b>B1443</b>	<b>MODIFIED TERGITOL-7 AGAR BASE (TERGITOL-7 AGAR BASE, MODIFIED)</b>			
<b>Formula</b>				
<b>Ingredients:</b>		<b>gms/lit.</b>		
Peptic digest of animal tissue		10.00		
Yeast extract		6.00		
Meat Extract		5.00		
Lactose		20.00		
Sodium heptadecyl sulphate(Tergitol 7)		0.10		
Bromo thymol blue		0.05		
Agar		16.00		
Final pH (at 25°C):		7.2± 0.2		
<b>Directions:</b>				
Suspend 57.15 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Add 2.5 ml of 1% Triphenyl Tetrazolium Chloride (TTC) (BF044). Mix well and pour into sterile Petri plates.				
<b>Principle:</b>				
Tergitol 7 (sodium heptadecyl sulfate) inhibits growth of gram – positive microorganisms and spore – forming gram – negative microorganisms, as well as the swarming of proteus, while allowing for superior recovery of coliforms. Lactose fermentation is indicated by a colour change of the pH indicator, bromo thymol blue. Lactose – fermenting microorganisms produce yellow colonies. E. coli produces yellow colonies with yellow zones, while Enterobacter and Klebsiella colonies are greenish – yellow. Nonfermenting organisms, such as Salmonella and Shigella, produce colonies surrounded by blue zones. When TTC is added to the medium, it serves as an indicator of bacterial growth. TTC is rapidly reduced to insoluble red formazan by most growth. TTC is rapidly reduced in bacterial cell to insoluble red formazan by most lactose – fermenting organisms except E. Coli. Enterobacter and Klebsiella species. In the presence of TTC, lactose fermenter, which includes the coliforms, produce greenish – yellow colonies with yellow zones, while lactose nonfermenters produce red colonies surrounded by blue zones. Peptone provides the carbon and nitrogen sources required for good growth of a wide variety of organisms. Vitamins and cofactors required for growth, as well as additional sources of nitrogen and carbon, are provided by yeast extract.				
<b>QC Tests – (I)Dehydrated Medium</b>				
Colour :		Cream to light green		
Appearance:		Homogeneous Free Flowing powder		
<b>(II)Rehydrated medium</b>				
pH (post autoclaving/heating):		7.2 ± 0.2		
Colour (post autoclaving/heating):		Green		
Clarity (post autoclaving/heating):		Clear to slightly opalescent		
<b>(III)Q.C. Test Microbiological</b>				
Cultural characteristics observed after an incubation at 35-37°C for 18 - 48 hours with added TTC Solution 1% (BF044).				
MICROORGANISM (ATCC)		GROWTH	COLOUR OF COLONY(ON PLAIN MEDIUM)	COLOUR OF COLONY (WITH ADDITION OF BF044)
Enterobacter aerogenes (13048)		Luxuriant	Yellow	reddish brown
Escherichia coli (25922)		Luxuriant	Yellow	yellow with red centre
Klebsiella pneumoniae (13883)		Luxuriant	Yellow	yellow with red centre

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	Proteus vulgaris (13315)	Good	colourless with bluish zone	red with bluish zone	
	Salmonella typhimurium (14028)	Luxuriant	colourless with blue zone	red with bluish zone Page 01 of 01.	
	Pseudomonas aeruginosa (27853)	Good	colourless with bluish zone	red with bluish zone	
	Staphylococcus aureus (25923)	Inhibited	--		
<b>Precautions :</b>	1. For Laboratory Use.				
	2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.				
<b>Limitations :</b>	1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.				
	2. Since the medium with TTC permits growth of coliform organisms, this fact must be taken into consideration in the isolation of Candida from specimens.				
	3. Pour plates do not give satisfactory results.				
	4. Allow plates to dry with lids slightly ajar for 1-2 hours after dispensing.				
	5. Reduction of TTC is an irreversible reaction that produces an insoluble formazan compound.				
<b>Use:</b>	For selective isolation and enumeration of coliform organisms in water by membrane filter method. The composition and performance criteria of this medium are as per the specifications laid down in ISO 9308-1:1990.				
<b>Storage:</b>	Dehydrated medium- below 30 ° C Prepared mediums- Between 2 to 8°C.				
<b>Packing:</b>	500 gm. bottle				
<b>Product profile:</b>	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
	57.15 g/l	8.748 L	7.2 ± 0.2	TTC solution 1% (BF044).	121°C /15 min.
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**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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