

TECHNICAL SHEET

B1302	TETRATHIONATE BROTH BASE (TT BROTH BASE)	
Formula		
Ingredients	gms/lit.	
Meat Extract B#	0.90	
Peptone	4.50	
Yeast extract	1.80	
Sodium chloride	4.50	
Calcium carbonate	25.00	
Sodium thiosulphate	40.70	
#Equivalent to beef extract		
Final pH (at 25°C) : Self		
Directions:		
Suspend 77.40 grams in 980 ml purified/ distilled water. Heat just to boiling. Cool below 45-50°C and aseptically add 20 ml iodine solution (6 grams of iodine and 5 grams of potassium iodide in 20 ml distilled water). Mix well and dispense in 10 ml quantities in sterile tubes. This complete medium should be used on the day of preparation. Do not heat after the addition of iodine solution. Use the medium immediately after addition of iodine.		
Note: Due to presence of calcium carbonate, the prepared medium forms opalescent solution with a white precipitate.		
Principle:		
This medium supports the rejuvenation of Salmonella cells injured by food processing which are incapable of forming colonies on plate, but on injection can cause infection. Yeast extract, meat extract B and peptone provides essential nutrients, growth factors and vitamins in this medium. Calcium carbonate neutralizes the acidic tetrathionate decomposition products. Sodium chloride maintains osmotic balance. The selectivity depends on the ability of thiosulphate and tetrathionate (formed by addition of Iodine and Potassium iodide) in combination to suppress commensal coliform organisms. The microorganism harboring tetrathionate reductase flourish in this broth. Sodium thiosulphates are inactivators of halogens and can minimize its toxicity in the testing sample, if any during microbial limit tests.		
QC Tests – (I) Dehydrated Medium		
Colour:	Cream to yellow	
Appearance:	Homogeneous Free Flowing powder	
(II) Rehydrated medium		
pH (post autoclaving/heating):	Self	
Colour (post autoclaving/heating):	With addition of brilliant green and iodine solution Light green.	
Clarity (post autoclaving/heating):	Opalescent solution with heavy white precipitate.	
(III) Q.C. Test Microbiological		
Cultural characteristics observed with added brilliant green and iodine solution when sub cultured on Xylose Lysine Deoxycholate Agar (BH819) after enrichment in Tetrathionate medium, after an incubation at 35-37°C for 18-72 hours.		
MICROORGANISM (ATCC)	RECOVERY	Colour of colony
Salmonella typhimurium (14028)	luxuriant	red with black centres
Salmonella Abony (NCTC 6017)	good-luxuriant	red with black centres
Precautions :	1. For Laboratory Use. 2. Follow proper, established laboratory procedures in handling and disposing of infectious materials. 3. IRRITANT. Irritating to eyes, respiratory system and skin. Avoid contact with skin and eyes. Do not breathe dust. Wear suitable protective clothing. Keep container tightly closed.	
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:	It is recommended as a selective enrichment broth for isolation of Salmonella Typhi and other Salmonellae from clinical specimens and biologicals as specified in Indian Pharmacopoeia, 1996.	

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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
B1302	77.4 g/l	6.459L	Self	iodine solution	DO NOT AUTOCLAVE

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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