

**TECHNICAL SHEET**

<b>B042</b>	<b>TCBS AGAR</b>	
<b>Formula</b>		
<b>Ingredients:</b>	<b>gms/lit.</b>	
Proteose peptone	10.00	
Yeast extract	5.00	
Sodium thiosulphate	10.00	
Sodium citrate	10.00	
Bile	8.00	
Sucrose	20.00	
Sodium chloride	10.00	
Ferric citrate	1.00	
Bromo thymol blue	0.040	
Thymol blue	0.040	
Agar	15.00	
Final pH (at 25°C):	8.6 ± 0.2	
<b>Directions:</b>		
Suspend 89.08 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Cool to 45-50°C. Mix well and pour into sterile Petri plates.		
<b>Principle :</b>		
Proteose peptone and yeast extract provide nitrogenous compounds, vitamin B complex and other essential growth nutrients. Bile, a derivative of bile salts and sodium citrate inhibit gram-positive bacteria and coliforms. Sodium thiosulphate serves as a good source of sulphur, which in combination with ferric citrate detects the production of hydrogen sulphide. For the metabolism of vibrios, sucrose is added as a fermentable carbohydrate. Vibrio that is able to utilize sucrose will form yellow colonies. Bromothymol blue and thymol blue are the pH indicators.		
<b>QC Tests - (I) Dehydrated Medium</b>		
Colour :	Light yellow to light tan	
Appearance :	Homogeneous Free Flowing powder	
<b>(II) Rehydrated medium</b>		
pH (post autoclaving/heating) :	8.6 ± 0.2	
Colour (post autoclaving/heating) :	Bluish green	
Clarity (post autoclaving/heating) :	Clear to slightly opalescent	
<b>(III) Q.C. Test Microbiological</b>		
Cultural characteristics observed after 18 – 24 hrs. at 35-37°C.		
MICROORGANISM (ATCC )	GROWTH	COLOUR OF COLONIES
Vibrio cholerae (15748 )	Good – luxuriant	Yellow
Vibrio fluvialis (33809)	Good – luxuriant	Yellow
Vibrio parahaemolyticus (17802 )	Good – luxuriant	Bluish green
Vibrio vulnificus (29306)	Fair to good	Greenish yellow
Escherichia coli (25922)	Inhibited	--
Proteus vulgaris (13315 )	Inhibited	--
Enterococcus faecalis (29212)	Inhibited	--
Shigella flexneri (12022)	Inhibited	--
<b>Precautions :</b>	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.	

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<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. Further tests are necessary for identification and confirmation of <i>Vibrio</i> spp.				
	3. On initial isolation, <i>V. parahaemolyticus</i> may be confused with <i>Aeromonas hydrophila</i> , <i>Plesiomonas shigelloides</i> and <i>Pseudomonas</i> species.				
	4. Sucrose – fermenting <i>Proteus</i> species produce yellow colonies which may resemble those of <i>Vibrio</i> .				
	5. TCBS is an unsatisfactory medium for oxidase testing of <i>Vibrio</i> spp.				
	6. A few strains of <i>V. cholerae</i> may appear green or colourless on TCBS due to delayed sucrose fermentation.				
<b>Use:</b>	For selective isolation and cultivation of <i>Vibrio cholerae</i> and other enteropathogenic <i>Vibrio</i> 's causing food-poisoning				
<b>Storage :</b>	Dehydrated medium- below 30°C Prepared medium– 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
<b>B042</b>	89.08 g/l	5.612 L	8.6 ± 0.2	NIL	121°C /15 min.