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TECHNICAL SHEET

B1313 XLD AGAR		
Formula		
Ingredients:	gms/lit.	
Yeast extract	3.00	
L-Lysine	5.00	
Lactose	7.50	
Sucrose	7.50	
Xylose	3.75	
Sodium chloride	5.00	
Sodium deoxycholate	1.00	
Sodium thiosulphate	6.80	
Ferric ammonium citrate	0.80	
Phenol red	0.08	
Agar	12.50	
Final pH (at 25°C): 7.4 + 0.3	2	_

Directions:

Suspend 52.9 grams in 1000 ml distilled water. Heat with frequent agitation until the medium boils. DO NOT AUTOCLAVE OR OVERHEAT. Transfer immediately to a water bath at 50°C. After cooling, pour into sterile Petri plates. It is advisable not to prepare large volumes that will require prolonged heating, thereby producing precipitate.

Note: Slight precipitation in the medium may occur, which is inheritant property of the medium, and does not affect the performance of the medium.

Principle:

Yeast extract provides sources of nitrogen and carbon, as well as vitamins and cofactors required for growth. Xylose, lactose, and sucrose (Saccharose) are fermentable carbohydrates. Xylose is fermented by most enteric organisms except Shigella and Providencia. Lysine is added to differentiate Salmonella. As xylose is exhausted, Salmonella organisms decarboxylate lysine causing reversion to alkaline conditions. Alkaline reversion by other lysine – positive organisms is prevented by excess acid production form fermentation of lactose and sucrose.

Sodium Thiosulfate and Ferric Ammonium citrate allow visualization of hydrogen sulfide production under alkaline conditions. Acidic conditions inhibit the reaction. Phenol red is an indicator. Sodium chloride maintains osmotic balance in the medium. Agar is a solidifying agent.

Sodium Deoxycholate in XLD agar inhibits growth of gram - positive organisms.

Bodiam Beoxycholate in ALB agai innibit	<u> </u>	process of grains po	Sitive organisms.		
QC Tests - (I)Dehydrated Medium					
Colour:		Light yellow to pink			
Appearance :		Homogeneous Free Flowing powder			
(II)Rehydrated medium	•				
pH (post autoclaving/heating):	pH (post autoclaving/heating) :		7.4 ± 0.2		
Colour (post autoclaving/heating):		Red			
Clarity (post autoclaving/heating):		Clear to very slightly opalescent			
(III)Q.C. Test Microbiological					
Cultural characteristics observed after	Cultural characteristics observed after 18 - 72 hrs. at 35 - 37°C.				
MICROORGANISM (ATCC)	GRO	DWTH	COLOUR OF COLONY		
Proteus vulgaris (13315)	Goo	d -luxuriant	grey with black centres		
Salmonella enteritidis (13076)	Goo	d -luxuriant	Red with black centers		
Salmonella paratyphi A	Goo	d -luxuriant	Red		
Salmonella paratyphi B	Good -luxuriant		Red with black centers		
Salmonella typhi (6539)	Goo	d -luxuriant	Red with black centers		
Salmonella typhimurium (14028)	Luxu	uriant	Red with black centers		
Salmonella Abony (NCTC6017)	good	d-luxuriant	Red with black centers		
Shigella sonnei (25931)	fair-	good	Red		
Shigella dysenteriae (13313)	Goo	d –luxuriant	Red		

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	Shigella flexneri (12022)	fair-good	Red	
Enterobacter aerogenes (13048) Escherichia coli (25922)		Fair	Yellow	
		Fair	Yellow	
	Escherichia coli (8739)	Fair	Yellow	
	Escherichia coli (NCTC9002)	Fair	Yellow	
	Staphylococcus aureus (25923)	inhibited	-	
	Staphylococcus aureus (8539)	inhibited	-	
	Enterococcus faecalis (29212)	inhibited	-	

Precautions:	 For Laboratory Use. Follow proper, established laboratory procedures in handling and disposing 						
	infectious materials.						
Limitations :	1. Since the nutritional requirements of organisms vary, some strains ma						
	encountered that fail to grow or grow poorly on this medium. 2. Non-enterics like Pseudomonas and Providencia may exhibit red colonies. 3. S. paratyphi A, S. choleraesuis, S. pullorum and S. gallinarum may form red colonies without black centers, thus resembling Shigella species.						
	4. Some Proteus strains will give black – centered colonies on XLD Agar.						
	5.Slight precipitation in the medium may occur, which is inheritant property of the						
	medium, and does not affect the performance of the medium.						
Use :	For selective isolation and enumeration of Salmonella typhi and other Salmonell species.						
Storage :	Dehydrated medium- below 30°C Prepared medium- Between 2 to 8°C.						
Packing:	500 gm. bottle						
Product profile:	Reconstitution	Quantity on	pH (25°C)	Supplement	Sterilizati	ilization	
		Preparation (500g)					
B1313	52.9 g/l	9.446 L	7.4 <u>+</u> 0.2	Nil	Do	not	
					autoclave/		
					over heat.	Boil	
					medium	to	
					dissolve		
					w/frequent	it	
					agitation		

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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