### **BIOMARK Laboratories-INDIA**

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## **TECHNICAL SHEET**

B425 BILE ESC	BILE ESCULIN AZIDE AGAR		
Formula			
Ingredients:	gms/lit.		
Tryptone	17.00		
Proteose peptone	3.00		
Meat Extract B#	5.00		
Oxgall	10.00		
Sodium chloride	5.00		
Esculin	1.00		
Ferric ammonium citrate	0.50		
Sodium azide	0.15		
Agar	15.00		
#- Equivalent to Beef extra	ct		
Final pH (at 25°C) :	7.1 <u>+</u> 0.2		

### Directions:

Suspend 56.65 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. Mix well and pour into sterile Petri plates.

# Principle:

This highly nutritious medium because of presence of tryptone, proteose peptone and Meat Extract B. Sodium azide inhibits growth of gram-negative organisms and permits the cultivation of faecal Streptococci. Esculin hydrolysis and bile tolerance permit isolation and identification of group D Streptococci in 24 hours. Agar is the solidifying agent.

QC Tests - (I)Dehydrated Medium					
Colour:	Cream to yellow				
Appearance :	Homogeneous Free Flowing powder				
(II)Rehydrated medium					
PH (post autoclaving/heating):	$7.1 \pm 0.2$				
Colour (post autoclaving/heating):	Amber coloured, with a bluish tinge				
Clarity (post autoclaving/heating):	Clear to slightly opalescent gel				
(III)Q.C. Test Microbiological					
Cultural characteristics observed after 18 –24 hrs at 35-37°C.					
MICROORGANISM (ATCC )	GROWTH ESCULIN HYDROLYSIS				
Enterococcus faecalis (29212 )	Luxuriant +				
Escherichia coli (25922)	Inhibited -				
Proteus mirabilis (25933)	Good -				
Staphylococcus aureus (25923)	Good -				
Streptococcus pyogenes (19615)	None - poor -				
Key: + = blackening of medium					
- = no change					

Refer disclaimer Overleaf

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Precautions :	1. For Laboratory Use.						
	2. Follow proper, established laboratory procedures in handling and disposing of						
	infectious materials.						
	3. HARMFUL. 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. Target organ(s): Cardiovascular, Lungs, Nerves.						
	4. Sodium azide has a tendency to form explosive metal azides with plumbing materials.						
	It is advisable to use enough water to flush off the disposables.						
Limitations :	1. Since the nutritional requirements of organisms vary, some strains may be						
	encountered that fail to grow or grow poorly on this medium.						
	2. Staphylococcus aureus and Staphylococcus epidermidis may exhibit growth on the						
	medium (less than 1 mm, white – gray colonies), but they will show no action on the						
	esculin.						
	3. Other than the enterococci, Listeria monocytogenes consistently blackens the medium						
	around colonies. Afer 18-24 hrs., there may be a reddish to black – brown zone of						
	hydrolysis surrounding pinpoint Listeria colonies. After 48 hours, white – gray						
	pigmented colonies will be seen. Listeria do not attain the same degree of esculin						
	hydrolysis displayed by enterococci in this short incubation period.						
Use :	For isolation and presumptive identification of faecal Streptococci.						
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	Sterilization		
		Preparation (500g)					
B425	56.65g/l	8.826L	7.1 <u>+</u> 0.2	NIL	121°C / 15 minutes		

### 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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