B741	STAPHYLOCOCCUS AGAR NO.110 W/ AZIDE
Formula	
Ingredients :	**gms/lit.**
Casein enzymic hydrolysate	10.00
Yeast extract	2.50
Gelatin	30.00
Lactose	2.00
D-Mannitol	10.00
Sodium chloride	75.00
Dipotassium phosphate	5.00
Sodium azide	0.10
Agar	15.00
Final pH (at 25°C) : 7.0 ± 0.2	

Directions :

Suspend 149.6 gms in 1000ml. distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Resuspend the precipitate by gentle agitation to avoid bubbles and pour the plates while the medium is hot. Alternatively, cool the medium to 45-50°C and add blood or egg yolk if desired. Staphylococcus Agar No.110 may also be used without sterilization; it should be boiled for 5 minutes and used at once.

Principle :

Staphylococcus Agar No.110 with azide is used for determination of coagulase positive Staphylococci in meat pies even in the presence of large number of Bacillus species (4). These media are recommended APHA (5). The addition of blood in the medium enables to study haemolytic reaction (6) and with egg yolk enables to study lecithinase production by Staphylococcus aureus (7). These media are selective due to high salt concentration and differential on the basis of ability of organisms to ferment the mannitol, pigment production and gelatin liquefaction.

These media are very nutritive as they contain casein enzymic hydrolysate, yeast extract which provide essential growth factors like vitamins, nitrogen, carbon compounds, sulphur and trace nutrients etc. to the organisms. High concentration of sodium chloride inhibts many bacterial species except staphylococci.sodium azide inhibits gram-negative organisms.Mannitol fermentation can be visualized as yellow colouration by addition of a few drops of bromo thymol blue to the areas of the plates from where colonies have been removed. Gelatin liquefaction can be seen when the plates are flooded with a saturated aqueous solution of ammonium sulphate. Enterococcus faecalis may grow on these media as small colonies with little mannitol fermentation (8).

QC Tests – (I)Dehydrated Medium		
	Colour :	Light Yellow
	Appearance :	Homogeneous Free Flowing powder
(II)Rehydrated medium		
	pH (post autoclaving/heating) :	7.0 ± 0.2
	Colour (post autoclaving/heating) :	Light amber
	Clarity (post autoclaving/heating) :	Opalescent
(III)Q.C. Test Microbiological		

Cultural characteristics observed after 48 hrs at 35 - 37°C.

MICROORGANISM (ATCC)	GROWTH	PIGMENT PRODUCTION	GELATINASE PRODUCTION	MANNITOL FERMENTATION
Staphylococcus aureus (25923)	Luxuriant	+	+	+
Staphylococcus epidermidis (12228)	Luxuriant	-	+	V
Enterococcus faecalis (29212)	None-poor	-	V	±
Escherichia coli (25922)	Inhibited	-	-	-

Key : + = positive reaction
- = negative reaction
V = variable reaction
± = slight reaction

Precautions :	1. For Laboratory Use.				
	2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.				
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 :	**B741**: For selective isolation and testing of pathogenic Staphylococci.				
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
B741	149.6G/L	3.342L	7.0 ± 0.2	blood or egg yolk	121^0C / 15 minutes