B722	SIMMONS AGAR BASE
Formula	
Ingredients :	**gms/lit.**
Magnesium sulphate	0.20
Ammonium dihydrogen phosphate	0.20
Sodium ammonium phosphate	0.80
Sodium chloride	5.00
Bromothymol blue	0.08
Agar	15.00
Final pH (at 25°C) :	7.0 ± 0.2

Directions :

Suspend 21.3 gms in 900 ml. distilled water. Boil to dissolve the medium completely. Add 100 ml of 0.2% solution of sodium citrate to it. Mix well & distribute in tubes or flasks. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle :

The ammonium dihydrogen phosphate is the sole source of nitrogen in Simmons Agar Base. Magnesium is a cofactor for a variety of metabolic reactions. Phosphate acts as a buffer. Sodium chloride maintains the osmotic balance of the medium. Agar is the solidifying agent. Bromo thymol blue is the pH indicator. Organisms that can utilize ammonium dihydrogen phosphate as their sole sources of nitrogen and carbon will grow on this medium and produce a colour change from green (neutral) to blue (alkaline).

QC Tests – (I)Dehydrated Medium		
	Colour :	Yellow
	Appearance :	Homogeneous Free Flowing powder
(II)Rehydrated medium		
	pH (post autoclaving/heating) :	7.0 ± 0.2
	Colour (post autoclaving/heating) :	Green forest green
	Clarity (post autoclaving/heating) :	Slightly opalescent
(III)Q.C. Test Microbiological		
	Cultural characteristics observed after 18 – 24 hrs.at 35- 37°C.	

	MICROORGANISM (ATCC)	GROWTH	COLOUR OF MEDIUM	CITRATE UTILIZATION
	Enterobacter aerogenes (13048)	Good - Luxuriant	Blue	+
	Salmonella enteritidis (13076)	Good - Luxuriant	Blue	+
	Salmonella typhimurium (14028)	Good - Luxuriant	Blue	+
	Salmonella typhi (6539)	Fair to good	Green	-
	Escherichia coli (25922)	Inhibited	Green	-
	Shigella dysenteriae (13313)	Inhibited	Green	-

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.				
	2. When inoculating a variety of biochemicals, flame the inoculating loop or needle before streaking Simmons Citrate Agar or inoculate Simmons Citrate Agar first to avoid a false positive result.				
	3. Some citrate positive organisms require 48 hours or longer incubation for a pH change to occur.				
Use :	**B722:** A synthetic medium recommended for differentiation between faecal coil and members of the aerogenes group on the basis of citrate utilization.				
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
B722	21.3g/l	23.474L	7.0 ± 0.2	0.2% solution of sodium citrate	121^0C / 15 minutes