B1408	UREA AGAR BASE (CHRISTENSEN)
Formula	
Ingredients:	**gms/lit.**

As per ISO 6579-1:2017		B1408- Urea Agar Base, Christensen	
Ingredients	**g / L**	**Ingredients**	**g / L**
Peptone	1.000	Peptone	1.000
Glucose	1.000	Glucose	1.000
Sodium chloride	5.000	Sodium chloride	5.000
Potassium dihydrogen phosphate	2.000	Potassium dihydrogen phosphate	2.000
Phenol red	0.012	Phenol red	0.012
Agar	15.00	Agar	15.00
Final pH (at 25°C)	6.8±0.2	Final pH (at 25°C)	6.8±0.2

Final pH (at 25°C) : 6.8 ± 0.2

Directions :

Suspend 24.01 grams in 950 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 10 lbs pressure (115°C) for 20 minutes. Cool to 45-50°C and aseptically add 50 ml of sterile 40% Urea Solution (BF048) and mix well. Dispense into sterile tubes and allow setting in a slanting position. Do not overheat or reheat the medium as urea decomposes very easily.

Principle :

Peptone is the source of nitrogen and carbon, long chain amino acids, vitamins and other essential nutrients. Dextrose is the energy source. Sodium chloride maintains the osmotic equilibrium of the medium whereas phosphates serve to buffer the medium. Urea is hydrolyzed to liberate ammonia. Phenol red indicator detects the alkalinity generated by visible Colour change from orange to pink. Agar is the solidifying agent.

QC Tests – (I)Dehydrated Medium			
	Colour :	Light yellow to light pink	
	Appearance :	Homogeneous Free Flowing powder	
(II)Rehydrated medium			
	pH (post autoclaving/heating) :	6.8 ± 0.2	
	Colour(post autoclaving/heating) :	Yellowish orange	
	Clarity(post autoclaving/heating) :	Clear to slightly opalascent	
(III)Q.C. Test Microbiological			
	Cultural characteristics observed on addition of 40% urea solution (BF048), after 18 – 24 hrs. at 35-37°C.		
	MICROORGANISM (ATCC)	GROWTH	UREASE
	Escherichia coli ATCC 25922	Luxuriant	negative reaction no change
	Proteus vulgaris (13315)	Luxuriant	positive reaction, cerise Colour
	Salmonella typhimurium (14028)	Luxuriant	negative reaction no change
	Proteus mirabilis (25933)	Luxuriant	positive reaction, cerise Colour
	Enterobacter aerogenes(13048)	Luxuriant	negative reaction no change
Precautions :	1. For Laboratory Use.		
	2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.		

Limitations :	1. Prolonged incubation may cause alkaline reaction in the medium.				
	2. Also, all urea test media rely on the alkalinity formation and so they are not specific for determining the absolute rate of urease activity				
	3. The utilization of proteins may raise the pH to alkalinity due to protein hydrolysis and excess of amino acids liberation results in false positive reaction				
Use :	Recommended for the detection of urease production, particularly by members of the genus Proteus. The composition and performance criteria are in accordance with ISO 6579-1:2017.				
Storage :	Dehydrated medium- below 30 ° C Prepared mediums– Between 2 to 8°C.				
Packing :	500 gm. Bottle				
Product profile:	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
B1408	24.01g/l	20.824L	6.8 $\pm$ 0.2	40%Urea Solution (BF048)	115^0C / 20 minutes