B399	R-2 A AGAR

Formula	
Ingredients :	**gms/lit.**
Casein acid hydrolysate	0.50
Yeast extract	0.50
Proteose peptone	0.50
Dextrose	0.50
Starch, soluble	0.50
Dipotassium phosphate	0.30
Magnesium sulphate	0.024
Sodium pyruvate	0.30
Agar	15.00

Final pH (at 25°C) : 7.2 ± 0.2

Directions :

Suspend 18.12 gms in 1000ml. distilled water. Boil to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. DO NOT OVERHEAT.

Principle :

Yeast Extract provides a source of trace elements and vitamins. Proteose peptone and Casein acid hydrolysate provide nitrogen, vitamins, amino acids, carbon and minerals. Dextrose serves as a carbon source. Soluble Starch aids in the recovery of injured organisms by absorbing toxic metabolic byproducts. Sodium pyruvate increases the recovery of stressed cells. Potassium phosphate is used to balance the pH and provide phosphate. Magnesium Sulfate is a source of divalent cations and sulfate. 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) :	7.2 ± 0.2
Colour (post autoclaving/heating) :	Light to medium yellow
Clarity (post autoclaving/heating) :	Clear to slightly opalescent
(III)Q.C. Test Microbiological	

Cultural characteristics observed after an incubation at 35-37°C for 24-72 hours. In case of water samples from fields it is suggested to incubate further for up to 7 days to ascertain the absence of organisms

MICROORGANISM (ATCC)	GROWTH
Candida albicans (10231)	Good - Luxuriant
Escherichia coli (25922)	Good - Luxuriant
Escherichia coli (8739)	Good - Luxuriant
Escherichia coli NCTC 9002	Good - Luxuriant
Salmonella enteritidis (13076)	Good – Luxuriant
Salmonella typhi (6539)	Good – Luxuriant
Enterococcus faecalis (29212)	Good -Luxuriant

Precautions :

1. For Laboratory Use.
2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.

Refer disclaimer Overleaf

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. R2A Agar is intended for use only with treated potable water since it is recommended for compromised bacteria.				
	3. Use of the pour plate method is discouraged because recovery of stressed bacteria may be compromised by the heat shock (44-46°C) and low oxygen tension that are part of the procedure.				
	4. Incubation time longer than indicated above may be necessary to recover additional slow – growing bacteria.				
	5. R2A Agar performs best with the spread plate technique; however, that procedure is limited to a small sample volume.				
	6. Fast – growing bacteria may produce smaller size colonies on R2A Agar than on nutritionally rich media.				
	7. R2A Agar is a low nutrient medium intended for culturing compromised microorganisms. Good growth of standard, healthy control organisms does not necessarily reflect the ability of the medium to recover stressed organisms. Each new lot of medium should be performance tested against a previous lot of R2A Agar using tap water.				
Use :	For heterotrophic plate count of treated potable water using longer incubation periods.				
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
B399	18.12 g/l	27.59 L	7.2 $\pm$ 0.2	Nil	121^{0}C/15 min.