**BIOMARK Laboratories-INDIA**

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**TECHNICAL SHEET**

| **B349** | **UREA BROTH (FILTER STERILIZABLE)** |
|---|---|
| **Formula** | |
| **Ingredients :** | **gms/lit.** |
| Monopotassium phosphate | 9.10 |
| Dipotassium phosphate | 9.50 |
| Yeast extract | 0.10 |
| Phenol red | 0.01 |
| Urea | 20.00 |
| Final pH (at 25°C) : 6.8 ± 0.2 | |

**Directions :**

Suspend 38.7 grams in 1000 ml distilled water. Mix well and sterilize by filtration. DO NOT AUTOCLAVE OR HEAT the medium. Dispense in sterile tubes.

**Principle :**

Yeast extract provides vitamins and cofactors required for growth and as a source of nitrogen and carbon. Potassium phosphate, Monobasic and Potassium Phosphate, Dibasic provide buffering capability. Urea provides a source of nitrogen for those organisms producing urease. This is indicated by a colour change of the pH indicator, Phenol red, from yellow (pH 6.8) to red to pink – red (pH 8.1).

| | | |
|---|---|---|
| **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) : | Yellow to orange |
| | Clarity (post autoclaving/heating) : | Clear |
| **(III)Q.C. Test Microbiological** | | |
| | Cultural characteristics observed after 18 - 24 hrs.at 35 - 37°C. | |

| | MICROORGANISM (ATCC ) | GROWTH | UREASE | |
|---|---|---|---|---|
| | Enterobacter aerogenes (13048) | Luxuriant | - | |
| | Escherichia coli (25922) | Luxuriant | - | |
| | Klebsiella pneumoniae (13883 ) | Luxuriant | + | |
| | Proteus vulgaris (13315 ) | Luxuriant | + | |
| | Salmonella typhimurium (14028) | Luxuriant | - | |
| | Proteus mirabilis (12453) | Luxuriant | + | |
| | Key : + = positive reaction, cerise colour<br>- = negative reaction, no change | | | |

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|---|---|
| **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 :** | It is recommended for the identification of bacteria on the basis of urea utilization, specifically for the differentiation of Proteus species from Salmonella and Shigella species. |
| **Storage :** | Dehydrated medium and prepared medium between 2 to 8°C. |
| **Packing :** | 500 gm. Bottle |

| **Product profile:** | Reconstitution | Quantity on Preparation (500g) | pH (25°C) | Supplement | Sterilization |
|---|---|---|---|---|---|
| **B349** | 38.7 g/l | 12.91L | 6.8 ± 0.2 | Nil | DO NOT AUTOCLAVE OR HEAT. |