

RTA.KK.256 Revision Date/Revision Number:-/0 Issue Date: 01.11.2014

# R2A AGAR (60 MM)

### INTENDED USE:

A medium for the bacterial examination of drinking water.

### PRINCIPLE AND INTERPRETATION:

Enzymatic Digest of Casein, Enzymatic Digest of Animal Tissue, and Acid Hydrolysate of Casein provide nitrogen, carbon and minerals in R2A Agar. Yeast Extract is a source of vitamins and trace elements. Dextrose serves as a carbon source in the formula. Soluble Starch aids in the recovery of injured organisms by absorbing toxic metabolic by-products. Dipotassium Phosphate is used to balance the pH, and Magnesium Sulfate Heptahydrate is a source of divalent cations and sulfate. Sodium Pyruvate increases the recovery of stressed cells. Agar is the solidifying agent.

### **COMPOSITION:**

Ingredients	Gr/Liter
Yeast extract	0,5 gr
Proteose peptone	0,5 gr
Casein hydrolysate	0,5 gr
Glucose	0,5 gr
Starch	0,5 gr
Di-potassium phosphate	0,3 gr
Magnesium sulphate	0,24 gr
Sodium pyruvate	0,3 gr
Agar	15 gr

<sup>\*\*\*</sup>Formula adjusted, standardized to suit performance parameters  $pH: 7.2 \pm 0.2$ 

### PRECAUTIONS:

For professional use only. Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

### **TEST PROCEDURE:**

### Membrane Filter Method:

- 1. Shake the sample bottle vigorously at least 25 times to uniformly distribute the bacteria.
- 2. As eptically filter a predetermined volume of the sample through a 47mm, 0.45 + / 0.02um pore size membrane filter and rinse the sides of the funnel at least twice with 20 to 30ml of sterile buffered rinse water.
- 3. Use sterile forceps to aseptically remove the membrane filter from the filter base and roll it onto the surface of the agar, filtered side up, to avoid the formation of air bubbles between the membrane and agar surfaces. Reseat the membrane if bubbles occur.

### **QUALITY CONTROL:**

## 1.Sterility Control:

Incubation 48 hours at 30-35°C and 72 hours at 20-25°C: NO GROWTH

### 2.Phsical/Chemical Control

**pH**: 7,2± 0,2

Apperance: Light amber



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### **3.Microbiological Control:** Incubation at 35± 2 °C;24-72 hours and 25±2 °C:5-7d

Microorganism	Inoculum	Results	
	(CFU)	Growth	Reaction
Bacillus subtilis ATCC 6633	10-100	Good	Good
Pseudomonas aeruginosa ATCC 9027	10-100	Good	Good
Escherichia coli ATCC 8739	10-100	Good	Good
Candida albicans ATCC 10231	10-100	Good	Good
Staphylococcus aureus ATCC 6538	10-100	Good	Good

### STORAGE CONDITIONS AND SHELF LIFE:

Store the prepared medium at 2 - 12°C. Use before expiry date on the label..Do not use beyond stated expiry date.

#### DISPOSAL:

Incubated prepared medium may contain active bacteria and micro-organisms. Do not open infected medium. Infected plate should be autoclaved, incinerated or opened and soaked in a chlorine-based disinfectant (liquid bleach) for 20 minutes prior to disposal.

### **PACKAGING:**

Katalog Number: 02110 Packaging: Single wrap

Content: 10 plates/each package

### REFERENCES:

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- 5. Eaton, Rice and Baird (ed.). 2005. Standard methods for the examination of water and wastewater, 21st ed., online. American Public Health Association, Washington, D.C.
- 6. Kim and Feng. 2001. In Downes and Ito (ed.), Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington, D.C.
- 7. Van Soestberger and Lee. 1969. Appl. Microbiol. 18:1092.
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