

RTA.KK.119 Revision Date/Revision Number:-/0 Issue Date: 01.11.2014

# PLATE COUNT AGAR

#### **INTENDED USE:**

A non-selective medium for the plate count of microorganisms in milk, other dairy products, foods, water and waste water.

## PRINCIPLE AND INTERPRETATION:

Plate Count Agar is equivalent to the medium recommended by APHA for the isolation of microorganisms in milk and other dairy products. Tryptone provides amino acids and other complex nitrogenous substances and yeast extract supplies Vitamin B complexes.

#### **COMPOSITION:**

Ingredients	Gr/Liter
Tryptone	5 gr
Yeast extract	2,5 gr
Glucose	1 gr
Agar	9 gr

\*\*\*Formula adjusted, standardized to suit performance parameters **pH**:  $7,1 \pm 0,2$ 

#### **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:

Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results. Spread the plates by streaking methodology or by spiral method Incubate the plates right side up aerobically at 35 ± 2°C for 24h. (Incubation times longer than those mentioned above or different incubation temperatures may be required depending on the sample, on the specifications,... This medium can be inoculated directly or after enrichment broth) After incubation, enumerate all the colonies that have appeared onto the surface of the agar. Each laboratory must evaluate the results according to their specifications. Calculate total microbial count per ml of sample by multiplying the average number of colonies per plate by the inverse dilution factor if streaked a diluted sample. Report results as Colony Forming Unit (CFU's) per ml or g along with incubation time and temperature.

## 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: 7,1 ± 0,2

**Apperance:** Light amber

3.Microbiological Control: Cultural response on Plate Count Agar at 35± 2 °C after 24 hours incubation.

Microorganism	Inoculum (CFU)	Results	
		Growth	Reaction
Escherichia coli ATCC 25922	10-100	Good	Cream colonies
Staphylococcus aureus ATCC 6538	10-100	Good	Cream colonies
B.subtilis ATCC 6633	10-100	Good	Cream colonies

## 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.



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## PACKAGING:

Katalog Number: 02040 Packaging: Single wrap Content: 10 plates/each package

## **REFERENCES:**

1. American Public Health Association, Standard Methods for the Examination of Dairy Products, 14th ed., APHA Inc., Washington, D.C. (1978)

2. E.W. Frampton, et al., Comparison of  $\beta$ -glucuronidase and indole-based direct plating methods for enumeration of unstressed E. coli, J. Food Protect. 53, 933 (1990)

