

## TM 217 - MILK AGAR (BROWN AND SCOTT, MODIFIED)

### INTENDED USE

For enumeration of *Pseudomonas aeruginosa* in swimming pool waters.

### PRODUCT SUMMARY AND EXPLANATION

Milk Agar was modified by Brown and Scott for the confirmation of *Pseudomonas aeruginosa* in swimming pool waters. Swimming pool water is generally chlorinated potable water but it can also be from thermal springs or salt water. Microorganisms of concern are typically those from the body of the bather's including the artifices. *Pseudomonas aeruginosa* is one of the major supporting indicator organisms in the swimming pool. This organism is mainly responsible for ear and eye infection and is very likely to get disseminated in the swimming pool water due to constant contact of ears and eyes with the water.

### COMPOSITION

Ingredients	Gms / Ltr
<b>Part I</b>	
Instant non-fat milk	100.000
<b>Part II</b>	
Peptone	5.000
Sodium chloride	5.000
Beef extract	1.500
Yeast extract	1.500
Agar	15.000

### PRINCIPLE

Instant non-fat milk, peptone, yeast extract, Beef extract provide all the necessary nutrients mainly nitrogenous for the multiplication of *Pseudomonas aeruginosa*. *Pseudomonas aeruginosa* forms yellowish green colonies on this medium. *P. aeruginosa* hydrolyzes casein and produces a yellowish to green diffusible pigment on Milk Agar. For isolation, filter 200 ml or less water of the swimming pool through sterile membrane filters.

### INSTRUCTION FOR USE

- Part I: Dissolve 100 grams in 500 ml purified/distilled water.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 5 minutes. Cool to 55°C.
- Part II: Dissolve 28 grams in 500 ml purified/distilled water and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool rapidly to 55°C. Mix Part I and Part II together and pour into sterile Petri plates.

### QUALITY CONTROL SPECIFICATIONS

<b>Appearance of Powder</b>	: Part I: Cream to off white homogeneous free flowing powder. Part II - Cream to yellow homogeneous free flowing powder.
<b>Appearance of prepared medium</b>	: Light amber coloured opalescent gel forms in Petri plates.
<b>pH (at 25°C)</b>	: 7.4±0.2

### INTERPRETATION

Cultural characteristics observed after an incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Pigment Production	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	Good-luxuriant	>=50%	No pigment	35-37°C	18-24 Hours
<i>Pseudomonas aeruginosa</i>	27853	50-100	Good-luxuriant	>=50%	Yellowish green	35-37°C	18-24 Hours

**PACKAGING:**

In pack size of 500 gm bottles.

**STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.







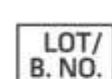


**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

**DISPOSAL**

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

**REFERENCES**

1. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
2. Brown M.R.W. and Scott F. J.H., 1970, J. Clin. Pathol., 23:172.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
Revision: 08 Nov., 2019