

## TM 1980 – ASPARAGINE BROTH FOR PSEUDOMONAS

### INTENDED USE

For presumptive identification and enumeration of *Pseudomonas aeruginosa* by MPN method.

### PRODUCT SUMMARY AND EXPLANATION

*Pseudomonas* is an opportunist pathogen for humans, capable of growing in water with low concentration of nutrients. *Pseudomonas aeruginosa* is one of the major contaminants of natural, fresh and recreational water. The presence of high numbers of *Pseudomonas aeruginosa* in potable water, can be associated with complaints about taste, odour and turbidity. Asparagine broth is an enrichment broth for *Pseudomonas aeruginosa*.

### COMPOSITION

Ingredients	Gms / Ltr
DL-Asparagine	3.000
Dipotassium hydrogen phosphate	1.000
Magnesium sulphate heptahydrate	0.500

### PRINCIPLE

The composition is strictly mineral base with Asparagine as the sole source of nitrogen. The Potassium salts act as a buffer system and Magnesium sulfate is a magnesium ion required in a large variety of enzymatic reactions, including DNA replication and also acts as a buffer. *Pseudomonas aeruginosa* hydrolyze asparagine to aspartic acid.

### INSTRUCTION FOR USE

- Dissolve 4.24 grams (the equivalent weight in dehydrated medium per litre) in 1000 ml purified / distilled water.
- Heat if necessary, to dissolve the medium completely.
- Dispense into tubes or flasks or as desired.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

### QUALITY CONTROL SPECIFICATIONS

<b>Appearance of Powder</b>	: White to cream homogeneous free flowing powder.
<b>Appearance of prepared medium</b>	: Colourless clear solution, without any precipitate.
<b>pH (at 25°C)</b>	: 7.05±0.15

### INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Pigment	Incubation Temperature	Incubation Period
<i>Pseudomonas aeruginosa</i>	9027	50-100	Luxuriant	Yellow green	35-37°C	18-72 Hours
<i>Pseudomonas aeruginosa</i>	27853	50-100	Luxuriant	Yellow green	35-37°C	18-72 Hours



<i>Pseudomonas aeruginosa</i>	25668	50-100	Luxuriant	Yellow green	35-37°C	18-72 Hours
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**PACKAGING:**

In pack size of 100 gm and 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. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. 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.
4. WHO (ed.) (2011) Guidelines for drinking-water quality, 4th edition.

 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**  
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