

TM 641 – PSEUDOMONAS ASPARAGINE BROTH (as per APHA)

INTENDED USE

For presumptive determination of *Pseudomonas aeruginosa* from water.

PRODUCT SUMMARY AND EXPLANATION

Recreational water like from swimming pool is a body of water in a holding structure. Microorganisms of concern are those causing infections of ear, skin and upper respiratory tract etc. *Pseudomonas aeruginosa* is one of those organisms which account for a large percentage of swimming pool associated illness. Asparagine Medium is recommended for the microbiological analysis of water. Pseudomonas Asparagine Broth is an excellent enrichment medium for *P. aeruginosa* since it is composed of a mineral base and the only carbon source is asparagine. It is also used in the multiple-tube technique for microbiological analysis of recreational waters. Pseudomonas Asparagine Broth is formulated as recommended by APHA for presumptive detection of *P. aeruginosa* from recreational or natural waters.

COMPOSITION

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

PRINCIPLE

Pseudomonas Asparagine Broth medium is a relatively simple medium containing an amino acid DL-asparagine and two salts dipotassium phosphate and magnesium sulphate. Asparagine is the amino acid and carbon source while phosphate and sulphate provide the ions for the growth of *P. aeruginosa*. Dipotassium phosphate also helps in maintaining the buffering conditions of the medium. This medium is only a presumptive medium for *P. aeruginosa* and further confirmatory tests are necessary for the identification.

INSTRUCTION FOR USE

- Dissolve 4.5 grams in 1000 ml distilled water.
- Gently boil to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Mix well and dispense as desired.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: White to cream homogeneous free flowing powder.
Appearance of prepared medium	: Colourless clear solution with slight precipitate.
pH (at 25°C)	: 7.0 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Pseudomonas aeruginosa</i>	27853	50-100	Luxuriant	35-37°C	18-24 Hours

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

- Eaton A. D., Clesceri L. S. and Greenberg A W., (Eds.), 2005, Standard Methods for the Examination of Water and Wastewater, 21st Ed., APHA, Washington, D.C.

 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