

# Asparagine Broth

Art. No. 02-271

## Specification

Liquid medium for assay and enumeration of presumptive *Pseudomonas aeruginosa* in bottled water by MPN method.

## Formula\* in g/L

Asparagine.....2,00  
Dipotassium phosphate.....1,00  
Monopotassium phosphate.....10,00  
Magnesium sulfate.....0,50  
Final pH 7,0 ± 0,2 at 25°C

\* Adjusted and /or supplemented as required to meet performance criteria

## Directions

Dissolve 13,5 g of powder in 1 L of distilled water containing 8 mL of glycerol. Sterilize by filtration and distribute in tubes (10 mL/tube). To obtain broth of double strength, dissolve 27 g of powder in 1 L of distilled water containing 16 mL of glycerol.

## Description

Asparagine medium is recommended for the microbiological analysis of bottled water. This is an excellent enrichment medium for *Pseudomonas aeruginosa*, since it is composed of a mineral base and the only carbon source is asparagine. It may also be used in the multiple tube technique in microbiological analysis of recreational waters and as a presumptive test medium for the differentiation of non fermentative Gram negative bacteria.

## Quality control

**Incubation temperature:** 35°C ± 2,0

**Incubation time:** 24 - 48 h

**Inoculum:** 1.000 - 10.000 CFU

## Technique

Some standards suggests viable enumeration by the MPN method with 5 tubes per series, inoculating 10 mL, 1 mL and 0,1 mL. All the tubes are incubated at 37°C for 48 hours. Growth, with or without pigmentation, is estimated as presumptive evidence of the presence of *Pseudomonas aeruginosa*. Enumeration is carried out with MPN tables for 5 tubes.

Confirmation is performed sub-culturing a loop of each tube in Acetamide Medium (Art. No. 03-428).

## References

- ATLAS, R.M., L.C. PARKS (1993) Handbook of Microbiological Media. CRC Press, Inc. London.
- PASCUAL ANDERSON, M.R. (1992) Microbiología Alimentaria. Díaz de Santos. Madrid.

## Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4°C to 30°C and <60% RH).

Microorganism	Growth	Remarks
<i>Staphylococcus aureus</i> ATCC 6538	Inhibited	-
<i>Escherichia coli</i> ATCC 8739	Inhibited	-
<i>Pseudomonas aeruginosa</i> ATCC 15442	Good	Green
<i>Pseudomonas aeruginosa</i> ATCC 27853	Good	Green
<i>Pseudomonas aeruginosa</i> ATCC 9027	Good	Green