

TECHNICAL DATA SHEET

ACETAMIDE BROTH

CONFIRMATION OF *PSEUDOMONAS AERUGINOSA*

1 INTENDED USE

Acetamide broth constitutes one of the confirmation media (in association with King B agar) used in water analysis for the detection and enumeration of *Pseudomonas aeruginosa*. It is generally accepted that natural mineral water, spring water and bottled water should not contain this opportunistic pathogen. For reasons of public health, other types of water such as swimming pools and potable water may also be examined for the presence of *Pseudomonas aeruginosa*.

The typical composition of this broth corresponds to that defined in the mandatory application directive NF EN ISO 16266 & NF T90-421.

2 PRINCIPLES

Magnesium sulfate, sodium molybdate and iron sulfate allow the selective growth of *Pseudomonas* in the medium.

Monopotassium phosphate provides a source of phosphorous.

Sodium chloride maintains the osmotic pressure.

The production of ammonia from the acetamide present in the medium by *Pseudomonas aeruginosa* is detected through the use of Nessler's reagent.

3 TYPICAL COMPOSITION

The composition can be adjusted to obtain optimal performance.

For 1 liter of medium :

- Acetamide	2,0 g
- Anhydrous magnesium sulfate (MgSO ₄)	0,2 g
- Monopotassium phosphate	1,0 g
- Sodium molybdate (Na ₂ MoO ₄ , 2·H ₂ O)	5,0 mg
- Iron sulfate (FeSO ₄ , 7·H ₂ O)	0,5 mg
- Sodium chloride	0,2 g
- Water (ammonia-free)	1000 mL

pH of the ready-to-use media at 25°C : 7,0 ± 0,5.

4 INSTRUCTIONS FOR USE

- Purify the presumptive positive colonies (from CN agar) on a nutrient agar.
- Re-inoculate an isolated colony into a ready-to-use broth tube (BM095).
- Incubate at 36 ± 2 °C for 22 ± 2 hours.
- Add 1 to 2 drops of Nessler's reagent and examine the tubes for production of ammonia.

✓ **Inoculation :**
One single colony

✓ **Incubation :**
22 h at 36°C

5 RESULTS

A positive reaction is observed when a yellow to brick-red color appears. Negative reactions result in no color change.

6 QUALITY CONTROL

Aspect, color : clear, limpid solution.

Production of ammonia after 22 hours of incubation at 36 °C (FD T 90-461):

Microorganisms		Production of ammonia
<i>Pseudomonas aeruginosa</i>	WDCM 00024	Positive
<i>Pseudomonas aeruginosa</i>	WDCM 00026	Positive
<i>Escherichia coli</i>	WDCM 00179	Negative

7 STORAGE / SHELF LIFE

Media in ready-to-use tubes : 2-8 °C, shielded from the light.

The expiration dates are indicated on the labels.

8 PACKAGING

Ready-to-use medium :

Packet of 7 x 5 mL tubes BM09508

9 BIBLIOGRAPHY

Arrêté du 17 septembre 2003 relatif aux méthodes d'analyses des échantillons d'eau et à leurs caractéristiques de performance (J. O. N° 258 du vendredi 7 novembre 2003 – Ministère de la santé, de la famille et des personnes handicapées).

NF EN ISO 16266. Août 2008. Qualité de l'eau. Détection et dénombrement de *Pseudomonas aeruginosa*. Méthode par filtration sur membrane.

NF T 90-421. Aout 2006. Qualité des eaux. Examens bactériologiques des eaux de piscines.

10 ADDITIONAL INFORMATION

The information provided on the labels take precedence over the formulations or instructions described in this document and are susceptible to modification at any time, without warning.

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