

# TECHNICAL DATA SHEET

## BRAIN-HEART BROTH

### NUTRITIVE BROTH

#### 1 INTENDED USE

Brain-Heart Broth is a buffered nutrient medium used for the culture of a wide variety of aerobic and anaerobic microorganisms including yeasts and molds. It is suitable for the detection of staphylocoagulase.

The typical composition of the broth responds to the formulation described in the Directives NF EN ISO 6888-1, NF EN ISO 6888-3 & NF V08-057-1 in food microbiology.

#### 2 HISTORY

In 1919, Rosenow formulated an excellent medium for the growth of streptococci by adding fragments of brain tissue to glucose broth. Brain-Heart Broth has derived from this.

#### 3 PRINCIPLES

Brain-Heart Broth uses the original principle of the Rosenow formula.

Its elevated content in nutritive compounds enables fastidious bacteria to rapidly reach the stationary phase of growth.

#### 4 TYPICAL COMPOSITION

The composition can be adjusted to obtain optimal performance.

For 1 liter of media :

- Pork brain-heart infusion .....	17,5 g
- Pancreatic digest of gelatin .....	10,0 g
- Sodium chloride .....	5,0 g
- Disodium phosphate .....	2,5 g
- Glucose .....	2,0 g

pH of the ready-to-use media at 25 °C : 7,4 ± 0,2.

#### 5 PREPARATION

- Dissolve 37.0 g of dehydrated medium (BK015) in 1 liter of distilled or deionized water.
- Stir slowly until complete dissolution.
- Dispense in tubes or flasks at 5 or 10 mL.
- Sterilize in an autoclave at 121°C for 15 minutes.
- Cool the media to room temperature.

✓ **Reconstitution :**  
37,0 g/L

✓ **Sterilization :**  
15 min at 121 °C

#### 6 INSTRUCTIONS FOR USE

##### Confirmation of coagulase positive Staphylococci (NF EN ISO 6888-1 & 3)

- Re-isolate a characteristic colony into a tube of Brain-heart broth.
- Incubate at 35-37°C for 24 hours.
- Proceed with the coagulase tube test using Coagulase Rabbit Plasma (refer to the technical data sheet for BR002).

✓ **Inoculation :**  
1 colony

✓ **Incubation :**  
24 h at 37 °C

**Notes :**

The duration and the temperature of incubation vary according to the Directive that is being followed.  
The media can also be used for enrichment.

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**7 RESULTS**

Growth is observed by the appearance of turbidity in the media.

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**8 QUALITY CONTROL**

**Dehydrated media :** cream-white powder, free-flowing and homogeneous.

**Prepared media :** light amber solution, limpid.

Typical culture response after 21 hours of incubation at 36°C :

Microorganisms		Growth
<i>Staphylococcus aureus</i>	WDCM 00035	Positive

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**9 STORAGE / SHELF LIFE**

**Dehydrated media :** 2-30 °C.

The expiration date is indicated on the label.

**Prepared media in tubes or vials (\*) :** 180 days at 2-25 °C.

(\*) Benchmark value, determined in standard conditions of preparation, following manufacturer's instructions.

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**10 PACKAGING**

**Dehydrated media :**

500 g bottle ..... BK015HA

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**11 BIBLIOGRAPHY**

Rosenow, E.C. 1919. Studies on selective localization. Focal infection with special reference to oral sepsis. Jour. Dent. Res., 1: 205-249.

NF EN ISO 6888-1. Octobre 1999. Microbiologie des aliments. Méthode horizontale pour le dénombrement des staphylocoques à coagulase positive (*Staphylococcus aureus* et autres espèces). Partie 1 : Technique utilisant le milieu gélosé de Baird-Parker. Modifié en Janvier 2004 par l'amendement A1 : Inclusion des données de fidélité.

NF V 08-057-1. Janvier 2004. Microbiologie des aliments. Méthode de routine pour le dénombrement des staphylocoques à coagulase positive par comptage des colonies à 37 °C. Partie 1 : Technique avec confirmation des colonies.

NF EN ISO 6888-3. Juin 2003. Microbiologie des aliments. Méthode horizontale pour le dénombrement des staphylocoques à coagulase positive (*Staphylococcus aureus* et autres espèces). Partie 3 : Recherche et méthode NPP pour les faibles nombres.

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**12 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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