# **MAST<sup>®</sup> Culture Media and Supplements**

**Technical Information Sheet** 

Product Code DM 106

## **Brain Heart Infusion Broth**

A versatile liquid medium for the culture of fastidious organisms.

## 1. Description

Brain heart infusion broth is a versatile liquid medium for the culture of streptococci, meningococci, Haemophilus spp. and other fastidious organisms. The high nutrient content of the medium has made it a popular choice for blood culture work, and its superiority over other media for this purpose has been demonstrated.<sup>1</sup> Enhanced growth of both aerobic and anaerobic organisms may be achieved by the addition of 0.1% agar, which produces an oxygen gradient in the medium.<sup>2</sup> Falk et al. (1939) used this to advantage in testing the sterility of biological fluids.<sup>3</sup> Brain heart infusion broth with added supplements has also been used as a medium for the susceptibility testing of anaerobic organisms by the broth dilution method. Certain-lactam antibiotics showed no detectable deterioration in this medium when stored at -20°C, over a 45 day test period.<sup>4</sup> It should be noted however, that there are sulphonamide antagonists present in Brain Heart Infusion Broth so its use in sulphonamide and trimethoprim susceptibility testing is not recommended.

## 2. Typical Formula\*

Formula	grams per litre
Brain heart infusion solids	3.5
Pancreatic digest of casein	10.0
Dextrose	2.0
Special peptone mixture	12.0
Yeast extract	2.0
Sodium chloride	5.0
pH approx. 7.3	

### **3. Directions**

1. Suspend 34.5g of powder in 1 litre or the contents of the sachet in the stated volume of distilled or deionised water.

2. Mix well and distribute into final containers.

3. Autoclave at 121°C (15p.s.i.) for 15 minutes.



#### 4. In Use

If the medium is not used on the day of sterilisation it should be boiled to remove oxygen, and cooled rapidly before use.

#### 5. References

1. Babu JP, Schell RF, Le Frock JL. J Clin Microbiol. 1978; 8: 288-292.

2. Hitchens AP. J Infectious Diseases 1921; 29: 390-407.

3. Falk Carolyn R, Bucca Helen B, Simmons Margaret P. J Bacteriol. 1939; 37: 121-131

4. Jones RN, Packer RP, Fuchs PC, Barry AL, Borchardt K. J. Antibiot. 1978; 31: 226-8

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