

## TM 1913 – BRAIN HEART INFUSION BROTH (ISO 6880-1983)

### INTENDED USE

For propagation of pathogenic cocci and other fastidious organisms associated with blood culture work and allied pathological investigations and for enrichment of *Staphylococcus aureus*.

### PRODUCT SUMMARY AND EXPLANATION

Rosenow devised the original Brain Heart Infusion Broth by adding brain tissue to dextrose broth. Brain Heart Infusion Broth is a highly nutritious medium and is also well buffered to support the growth of wide variety of microorganisms. Recently this medium has been recommended by ISO committee for the detection of *Staphylococcus aureus*. With the additions of desired additives this medium can be specifically adopted for cultivation of various bacteria. Addition of 6.5% sodium chloride makes it selective for isolation of various salt tolerant bacteria like Enterococci. Brain Heart Infusion Broth is also used for the preparation of inocula for use in antimicrobial susceptibility tests.

### COMPOSITION

| Ingredients                    | Gms / Ltr |
|--------------------------------|-----------|
| Peptic digest of animal tissue | 10.000    |
| Calf brain, infusion (solids)  | 12.500    |
| Beef heart, infusion (solids)  | 5.000     |
| Dextrose                       | 2.000     |
| Sodium chloride                | 5.000     |
| Disodium phosphate             | 2.500     |

### PRINCIPLE

The medium contains dextrose which acts as a source of energy. Phosphate ion buffers the medium. Sodium chloride helps in maintaining osmotic balance.

### INSTRUCTION FOR USE

- Dissolve 37 grams in 1000 ml distilled water.
- Dispense into bottles or tubes and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- For best results, the medium should be used on the day it is prepared, otherwise, it should be boiled or steamed for a few minutes and then cooled before use.

### QUALITY CONTROL SPECIFICATIONS

|                               |  |
|-------------------------------|--|
| Appearance of Powder          | : Cream to yellow homogeneous free flowing powder.             |
| Appearance of prepared medium | : Light amber coloured, clear to slightly opalescent solution. |
| pH (at 25°C)                  | : 7.4±0.2  |

### INTERPRETATION

Cultural characteristics observed after incubation.

| Microorganism | ATCC | Inoculum (CFU/ml) | Growth | Incubation Temperature | Incubation Period |
|---------------|------|-------------------|--------|------------------------|-------------------|
|---------------|------|-------------------|--------|------------------------|-------------------|



|                                 |       |        |           |         |             |
|---------------------------------|-------|--------|-----------|---------|-------------|
| <i>Neisseria meningitidis</i>   | 13090 | 50-100 | Luxuriant | 35-37°C | 18-24 Hours |
| <i>Staphylococcus aureus</i>    | 25923 | 50-100 | Luxuriant | 35-37°C | 18-24 Hours |
| <i>Streptococcus pneumoniae</i> | 6303  | 50-100 | Luxuriant | 35-37°C | 18-24 Hours |
| <i>Streptococcus pyogenes</i>   | 19615 | 50-100 | Luxuriant | 35-37°C | 18-24 Hours |

#### PACKAGING:

In pack size of 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

1. Rosenow, 1919, J. Dental Res., 1:205.
2. Roseburg T. et al, 1944, J. Inf. Dis., 74:131.
3. Conant N.F., 1950, Diagnostic Procedures and Reagents, 3rd Ed., APHA, Inc., New York, p. 452.
4. MacFaddin J.F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
5. International Organization for Standardization (ISO), 1983, Enumeration of Staphylococcus aureus, Draft ISO/DIS 6880.

|  |  |  |   |   |   |
|--|--|--|---|---|---|
| <br>Good Manufacturing<br>Practices Certified | <br>For In Vitro Diagnostic Use   | <br>Quantity            | <br>Lot / Batch Number | <br>Catalogue Number                 | <br>Manufacturer |
| <br>Temperature Unit                          | <br>Authorized Representative<br>MedNet GmbH<br>Birkstrasse 10,<br>48163 Münster, Germany | <br>European Conformity | <br>QR Code            | <br>Consults Instructions<br>for Use | <br>Best Before  |

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
Revision: 08 Nov., 2019