

## CM 20858 - KF STREPTOCOCCAL BROTH BASE

### INTENDED USE

For detection and enumeration of faecal Streptococci in water and examination of faeces.

### PRODUCT SUMMARY AND EXPLANATION

Streptococci are spherical, gram-positive bacteria and form a part of the normal commensal flora of the mouth, skin, intestine, upper respiratory tract of humans. Streptococci found in the faeces form the faecal Streptococci and constitute of Streptococci with group D Lancefield antigens. The types include Streptococcus faecalis, Streptococcus faecium, Streptococcus bovis and Streptococcus duran. They are low-grade pathogens and rarely cause disease. However, they may cause urinary tract infection in catheterized patients; mixed abdominal wound infections following gut surgery; and endocarditis on abnormal valves. Kenner-Faecal Medium were developed by Kenner et al for detecting Streptococci in water and food materials.

### COMPOSITION

| Ingredients                      | Gms / Ltr |
|----------------------------------|-----------|
| Peptone, special                 | 10.000    |
| Yeast extract                    | 10.000    |
| Sodium chloride                  | 5.000     |
| Sodium $\beta$ -glycerophosphate | 10.000    |
| Sodium carbonate                 | 0.636     |
| Maltose                          | 20.000    |
| Lactose                          | 1.000     |
| Sodium azide                     | 0.400     |
| Phenol red                       | 0.018     |

### PRINCIPLE

Special peptone along with yeast extract provide nitrogen, carbon, sulphur, amino acids, vitamins and trace ingredients to the faecal Streptococci. Lactose and maltose are the fermentable carbohydrates and therefore serve as energy sources. Sodium azide is a selective agent, which hampers the growth of gram-negative bacteria.

2, 3, 5-Triphenyl Tetrazolium Chloride is reduced to insoluble formazan by actively metabolizing cells, resulting in the formation of pink or red colour. Bacteria resistant to azide, utilize lactose and / or maltose. Bacterial cells reduce TTC to insoluble formazan, resulting in the formation of pink to red colour.

### INSTRUCTION FOR USE

Dissolve 57.05 grams in 1000 ml purified/distilled water.

Heat if necessary to dissolve the medium completely.

Dispense in to tubes or flasks as desired.

Sterilize by autoclaving at 15 psi pressure (121°C) for 10 minutes.

Cool to 45-50°C. If desired, for use in the membrane filter technique, 1 ml of 1% 2,3,5 Triphenyl Tetrazolium Chloride (TTC) may be added to each 100 ml of sterile cooled broth.

### QUALITY CONTROL SPECIFICATIONS



Appearance of Powder : Light yellow to pinkish beige homogeneous free flowing powder.  
Appearance of prepared medium : Red coloured, clear solution without any precipitate.  
pH (at 25°C) : 7.2±0.2

#### INTERPRETATION

Cultural characteristics observed after an incubation.

| Microorganism         | ATCC  | Inoculum (CFU/ml) | Growth         | Colour of colony | Incubation Temperature | Incubation Period |
|-----------------------|-------|-------------------|----------------|------------------|------------------------|-------------------|
| Klebsiella aerogenes  | 13048 | $\geq 10^3$       | Inhibited      | -                | 35 - 37°C              | 48-72 Hours       |
| Enterococcus faecalis | 29212 | 50-100            | Good-luxuriant | Yellow           | 35 - 37°C              | 48-72 Hours       |
| Escherichia coli      | 25922 | $\geq 10^3$       | Inhibited      | -                | 35 - 37°C              | 48-72 Hours       |

#### PACKAGING:

In pack size of 100 gm and 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.

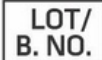
#### DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

#### REFERENCES

1. Baird R. B., Eaton A. D., and Rice E. W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
2. Isenberg, H. D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. Jorgensen, J. H., Pfaller, M. A., Carroll, K. C., Funke, G., Landry, M. L., Richter, S. S and Warnock, D. W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
4. Kenner B. A., Clark H. F. and Kabler P. W., 1960, Am. J. Public Health, 50:1553. 5 Kenner B. A., Clark H. F. and Kabler P. W., 1961, Appl. Microbiol., 9:15.



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|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <br>GMP<br>Good Manufacturing<br>Practices Certified | <br>IVD<br>For In Vitro Diagnostic Use                                                                            | <br>QTY.<br>Quantity    | <br>LOT/<br>B. NO.<br>Lot / Batch Number | <br>REF<br>Catalogue Number          | <br>Manufacturer |
| <br>Temperature Unit                                 | <br>EC REP<br>Authorized Representative<br><small>MedNet GmbH<br/>Buckhorn 10,<br/>48163 Münster, Germany</small> | <br>European Conformity | <br>QR<br>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 LabUse Only

