# SF (Streptococcus Faecalis) Broth



Medium used for the isolation and identification of fecal streptococci from milk, water, sewage and feces. \*Equally use with Bromocresol Purple Azide Broth (MB-B1321).

## CONTENTS (Liter)

| Tryptone                                   | 20.0 g  |
|--|---------|
| Glucose                                    | 5.0 g   |
| Dipotassium Phosphate                      | 4.0 g   |
| Monopotassium Phosphate                    | 1.5 g   |
| Sodium Chloride                            | 5.0 g   |
| Sodium Azide                               | 0.5 g   |
| Bromocresol Purple                         | 0.032 g |
| Final pH = $6.9 \pm 0.2$ at $25^{\circ}$ C |         |

#### PROCEDURE

Suspend 36.03 G of powder in 1 L of distilled or deionized water. If necessary, add 5 mL of Glycerol supplement (MB-G1821). Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Mix well. Pour into tubes.

#### INTERPRETATION

SF (Streptococcus Faecalis) Broth is a medium used for the isolation and identification of fecal streptococci from milk, water, sewage and feces. Tryptone provides nitrogen, carbon, vitamins and minerals for the growth of microorganisms. Glucose is the fermentable carbohydrate. Phosphates are the buffering agents. Sodium chloride maintains the osmotic balance. Sodium azide inhibits most of the other accompanying bacteria. Bromocresol purple is the pH indicator. The addition of glycerol increases glucose fermentation by fecal streptococci.

#### TECHNIC

Inoculate the specimen using a sterile needle to the medium. Incubate at 36  $\pm$  1°C or 45  $\pm$  1°C for 18 - 48 hours. Refer appropriate references for recommended test procedure.

## QUALITY CONTROL FOR USE

**Dehydrated medium** 

Appearance: free-flowing, homogeneous

Color: light beige <u>Prepared medium</u> Appearance: clear Color: purple

Incubation conditions:  $36 \pm 1^{\circ}\text{C}$  or  $45 \pm 1^{\circ}\text{C}$  / 18 - 48 hours

| Microorganism         | ATCC  | Inoculum CFU     | Growth    | Characteristics |
|-----------------------|-------|------------------|-----------|-----------------|
| Enterococcus faecalis | 29212 | 50-100           | good      | yellow          |
| Enterococcus faecium  | 19434 | 50-100           | good      | yellow          |
| Escherichia coli      | 25922 | ≥10 <sup>3</sup> | inhibited | -               |
| Staphylococcus aureus | 25923 | ≥10 <sup>3</sup> | inhibited | -               |

## STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

#### REFERENCES

- 1. Hajna, A.A., and C.A. Perry (1943). American journal of public health, 33: 550.
- 2. AOAC (1970). Methods of analysis, 11th edition.

### PACKAGE

| Cat. No : MB-S1180<br>SF (Streptococcus Faecalis) Broth | 500 G |
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