

## m-TGE Broth

Catalog : HB0162-1

*m-TGE Broth is used for enumerating microorganisms by membrane filtration.*

### Approximate Formula:

| Ingredients             | gm/liter |
|-------------------------|----------|
| Tryptone                | 10.0     |
| Beef Extract            | 6.0      |
| Glucose                 | 2.0      |
| Final pH7.0±0.2 at 25°C |          |

\*Adjusted and/or supplemented as required to meet performance criteria.

### Directions:

Suspend 18.0g of the medium in one liter of distilled water or deionized water. Mix well and heat with frequent agitation to completely dissolve the powder. Dispense into flasks. Sterilize in an autoclave at 121 °C (15 lbs.) for 15 minutes.

### Principle and Interpretation:

Tryptone provides carbon and nitrogen sources, vitamins and growth factors. Beef extract provides carbon sources, vitamins and growth factors. Glucose provides carbon source and is a fermentable carbohydrate.

### Appearance:

Dehydrated medium is a free-flowing yellowish powder. The prepared medium is a kind of yellowish transparent liquid.

### Precautions:

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

### Storage conditions and Shelf life:

m-TGE Broth must be stored tightly capped in the original container at 5-30°C. The dehydrated medium has a shelf life of 5 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8°C.

### Quality control:

Prepare the culture medium as per label directions. Inoculate and incubate at 36±1 °C for 18-24 hours.

| Microorganism                 | Strains Number | Inoculum (CFU) | Growth    | Remarks |
|-------------------------------|----------------|----------------|-----------|---------|
| <i>Escherichia coli</i>       | ATCC 25922     | 10-100         | Luxuriant | Turbid  |
| <i>Staphylococcus aureus</i>  | ATCC 6538      | 10-100         | Luxuriant | Turbid  |
| <i>Pseudomonas aeruginosa</i> | ATCC 9027      | 10-100         | Luxuriant | Turbid  |

### References:

1. Bowers and Hucker. 1935. Tech. Bull. 228. New York State Agr. Exp. Sta., Geneva, N.Y.
2. Yale. 1938. Am. J. Pub. Health 28:148.
3. Proc. 36th Cong. Intern. Assoc. Ice Cream Manufacturers. 1936. 2:132.
4. American Public Health Association. 1980. Standard methods for the examination of water and waste water, 15th ed. American Public Health Association, Washington, D.C.
5. Kim and Feng. 2001. In Downes and Ito (ed.), Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington, D.C.