

## CM 21059 - M-FILTER RINSE BROTH

### INTENDED USE

Used as a rinsing fluid in the membrane filtration procedure.

### PRODUCT SUMMARY AND EXPLANATION

The membrane filter technique is highly reproducible, can be used to test relatively large sample volumes and usually yields numerical results more rapidly than the multiple tube fermentation procedure. The membrane filter technique is extremely useful in monitoring drinking water and a variety of natural waters. M-Filter Rinse Broth complies with the formulation as described in USP. After membrane filtration it is often necessary to rinse the membrane filter in order to remove residues of liquid sample materials. Use of this medium is recommended if the sample contains higher hydrocarbons or fats.

The rinsing fluid protects the microorganisms retained by the filter from physiological shock, thus enabling microbes to grow rapidly. If the sample contains large quantities of carbohydrates or fats, additional quantities of polysorbate 80 up to 9.0 gm/litre can be added to the broth medium in accordance with USP recommendations.

After filtering the liquid sample, rinse the filter 3 times with 100 ml portions of the M-Filter Rinse Broth, then complete the test in usual way.

### COMPOSITION

| Ingredients                    | Gms / Ltr |
|--------------------------------|-----------|
| Peptic digest of animal tissue | 5.000     |
| Meat extract                   | 3.000     |
| Polysorbate 80                 | 1.000     |

### PRINCIPLE

Peptic digest of animal tissue provides nitrogenous nutrients, carbon compounds and trace elements to the microorganisms as meat extract provides an excellent medium for the growth of bacteria and temperatures. Polysorbate 80 emulsifies the carbohydrate and fats without harming the microorganisms.

### INSTRUCTION FOR USE

Dissolve 9 grams in 1000 ml distilled water.

Heat if necessary to dissolve the medium completely and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

If desired add up to 9 gm/litre of Polysorbate 80 and filter the broth medium before autoclaving.

### QUALITY CONTROL SPECIFICATIONS

|                                      |                                                       |
|--------------------------------------|-------------------------------------------------------|
| <b>Appearance of Powder</b>          | : Cream to yellow homogeneous free flowing powder     |
| <b>Appearance of prepared medium</b> | : Light yellow coloured clear solution forms in tubes |
| <b>pH (at 25°C)</b>                  | : 6.9±0.2                                             |

### INTERPRETATION

Cultural characteristics observed after an incubation.

| Microorganism               | ATCC | Inoculum (CFU/ml) | Growth | Recovery | Incubation Temperature | Incubation Period |
|-----------------------------|------|-------------------|--------|----------|------------------------|-------------------|
| <i>Citrobacter freundii</i> | 8090 | 50-100            | good   | 40-50%   | 35-37°C                | 18-24 Hours       |



|                               |       |        |      |        |         |             |
|-------------------------------|-------|--------|------|--------|---------|-------------|
| <i>Escherichia coli</i>       | 25922 | 50-100 | good | 40-50% | 35-37°C | 18-24 Hours |
| <i>Enterococcus faecalis</i>  | 29212 | 50-100 | good | 40-50% | 35-37°C | 18-24 Hours |
| <i>Pseudomonas aeruginosa</i> | 27853 | 50-100 | good | 40-50% | 35-37°C | 18-24 Hours |
| <i>Staphylococcus aureus</i>  | 25923 | 50-100 | good | 40-50% | 35-37°C | 18-24 Hours |
| <i>Streptococcus pyogenes</i> | 19615 | 50-100 | good | 40-50% | 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. The United States Pharmacopoeia, 2006, USP29/NF24. The United States Pharmacopoeial Convention, Rockville, MD.

|                                                                                                                                  |                                                                                                           |                                                                                                                          |                                                                                                           |                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <br>Good Manufacturing<br>Practices Certified | <br>Best Before        | <br>Quantity                          | <br>Catalogue Number | <br>Manufacturer |
| <br>Temperature Unit                          | <br>Lot / Batch Number | <br>Consults Instructions<br>for Use | <br>QR<br>Code       |                                                                                                       |

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

**\*For Lab Use Only**

