

# Membrane-filter Rinse Fluid (USP)

The broth is used as a rinsing fluid in the membrane filtration procedure.

This medium largely complies with the formulation prescribed in the recommendations of the United States Pharmacopeia XXVI (2003).

## Mode of Action

After filtration it is often necessary to rinse the membrane filter in order to remove residues of liquid sample materials. If the sample contains higher hydrocarbons such as vaseline, paraffin, etc. or fats, the use of rinse fluid is recommended.

This fluid contains balanced concentrations of nutrients which prevent the microorganisms, retained by the filter, from being exposed to physiological shock, thus being capable to grow further rapidly. The detergent polysorbate 80 ensures emulsification of carbohydrates and fats without seriously affecting the microorganisms. If the sample contains large quantities of these compounds, additional up to 9.0 g/litre of polysorbate 80 (Tween® 80) can be added in accordance with the USP recommendations before the broth is filtered.

## Typical Composition (g/litre)

Peptone from meat 5.0; meat extract 3.0; polysorbate 80 1.0.

## Preparation

Suspend 9 g/litre, if desired together with up to 9 g/litre of polysorbate 80 (Tween® 80), filter until clear, autoclave (15 min at 121 °C).

pH: 6.9 ± 0.2 at 25 °C.

The broth is clear and yellow.

## Experimental Procedure and Evaluation

After filtering the liquid sample, rinse the filter 3 times with 100 ml portions of the membrane-filter rinse fluid, then complete the test in the usual way.

Incubation for 24 hours at 35 °C aerobically.

## Literature

United States Pharmacopeia XXVI, Chapter "Microbial Limit Tests", 1995.

## Ordering Information

| Product                           | Merck Cat. No. | Pack size |
|-----------------------------------|----------------|-----------|
| Membrane-filter Rinse Fluid (USP) | 1.05286.0500   | 500 g     |
| Tween® 80                         | 8.22187.0500   | 500 ml    |

## Quality control (streaked on Standard I Nutrient Agar 1.07881.)

| Test strains                      | Growth |
|-----------------------------------|--------|
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| Staphylococcus aureus ATCC 25923  | good   |
| Streptococcus pyogenes ATCC 12344 | good   |
| Enterococcus faecalis ATCC 11700  | good   |
| Escherichia coli ATCC 25922       | good   |
| Citrobacter freundii ATCC 8090    | good   |
| Pseudomonas aeruginosa ATCC 27853 | good   |