



Friis Liquid Medium Base

M1928

Recommended for the detection of non-avian Mycoplasmas in pharmaceutical products in accordance with European pharmacopoeia

Composition**

| Ingredients | Gms / Litre |
|---|-------------|
| Proteose petone | 0.820 |
| Peptone | 1.510 |
| Yeast extract | 6.200 |
| Sodium chloride | 5.050 |
| Magnesium sulphate, heptahydrate | 0.049 |
| Potassium chloride | 0.195 |
| Calcium chloride, anhydrous | 0.068 |
| Magnesium chloride, hexahydrate | 0.049 |
| Disodium hydrogen phosphate, dihydrate | 0.036 |
| Disodium hydrogen phosphate | 1.510 |
| Dipotassium hydrogen phosphate, anhydrous | 0.029 |
| Calf brain infusion from | 16.420 |
| Beef heart infusion from | 28.060 |
| Glucose monohydrate | 0.164 |
| Phenol red | 0.137 |
| Final pH 7.40 -7.45 | |

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 18.01 grams (the equivalent weight of dehydrated medium per litre) in 800 ml distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15psi pressure (121°C) for 15 minutes. Cool to 45-50°C. Aseptically add 100 ml of Horse serum (RM1239), 100 ml of Pig (Swine) (RM10415) serum and rehydrated contents of Two vials of Friis supplement (FD317). Mix well and dispense as desired.

Principle And Interpretation

Mycoplasmas (mollicutes) are the smallest free-living microorganisms (1). Earlier *Mycoplasmataceae* were given the general title of pleuropneumonia like organism (PPLO), because of similarities to *Mycoplasma mycoides* (subsp. *mycoides*), the causative agent of bovine pleuropneumonia (2). Although some species are normal human respiratory tract flora, *Mycoplasma pneumoniae* is an important cause of pneumoniae and a major cause of respiratory disease. *Mycoplasma hominis*, *Mycoplasma genitalium* and *Ureaplasma urealyticum* are important colonizers (and possible pathogens) of the human genital tract.

This medium is recommended by European pharmacopoeia (3) for the detection of non-avian mycoplasma. The optimum growth conditions are 35-38°C under microaerophilic conditions.

For the cultivation of *Mycoplasma* the medium ingredients and all the supplements should be free of any toxic substances even in small amounts. Proteose peptone, peptone, yeast extract, calf brain infusion from and beef heart infusion from powder provide nitrogen, vitamins, amino acids and carbon sources. Sodium chloride maintains the osmotic balance. Many *Mycoplasma* require serum which is supplemented by horse serum and swine serum in the medium for their good growth. The presence of antibiotic is necessary to prevent the growth of contaminating organisms. Mostly the *Mycoplasma* species are aerobic or facultatively anaerobic but some are microaerophilic. Sodium chloride maintains the osmotic balance. Phosphates buffer the medium. Other inorganic salts supply the necessary ions.

Quality Control

Appearance

Light yellow to pink homogeneous free flowing powder

Please refer disclaimer Overleaf.

