

## LT 100 agar

## 356-3904

### DEFINITION

Medium used for the enumeration of total mesophilic aerobic bacteria in cosmetics with or without preservatives.

### PRINCIPLE

The presence of lecithin and Tween permits neutralising the anti-bacterial activity of most antiseptics or preservatives such as phenic derivatives, aldehydes and quaternary ammonium salts.

The medium is constituted of a mixture of peptones, cystine, glucose and salts that favour the growth of a wide variety of microorganisms. The sodium chloride maintains osmotic pressure.

### PRESENTATION

- **Pre-poured**  
90 mm x 20 plates **code 356-3904**

### STORAGE

- Pre-poured : + 2° to 20°C
- Expiry date and batch number are indicated on the pack.

### TYPICAL FORMULA

#### Bouillon

Pancreatic casein peptone	15 g
Papainic soy peptone	5 g
Sodium chloride	5 g
Distilled water	1000 ml

To this base broth is incorporated the following mixture, at the rate of 10%:

Lecithin	10 g
Polysorbate	50 g
Triton X 100	10 g
Distilled water	1000 ml

#### LT 100 Agar

The formula differs from that of the broth only by the incorporation of 15 g of agar per litre of base broth.

Final pH (25°C) = 7.0 ± 0,2

Remark: Adaptations of the formula were able to be realized to reach the required criteria of performance.

### EQUIPMENT REQUIRED (NOT SUPPLIED) (non-exhaustive)

- Sterile pipettes (0,1 ml, 1 ml,...)
- Sterile spreaders
- Water-bath precise to ± 1°C
- Thermostatically-controlled incubator or incubation room, precise to ± 1°C
- All usual laboratory equipment

### PROTOCOL

#### • Inoculation and incubation

With 1 g or 1 ml of product to be analysed, prepare a stock suspension at 1/10<sup>th</sup> with the LT 100 broth. Leave to revitalize for 2 hours.

Using this stock suspension, make successive dilutions with the LT100 broth, up to 10<sup>-5</sup> or 10<sup>-6</sup>. Incubate at 37 °C ± 1 °C for 24 - 48 hours.

- Proceed with enumeration of the flora :
- by incorporation in LT 100 agar
  - or by inoculation of agar on a plate or in an inclined tube
  - or directly in a liquid medium using the Most Probable Number technique.

In the presence of a number over 1000/ml or /g, proceed with detection of:

*Pseudomonas*, incl. *Pseudomonas aeruginosa*  
*Staphylococcus aureus*  
*Klebsiella pneumoniae*  
*Bacillus*  
*Xanthomonas*  
*Achromobacter*  
 Anaérobies  
*Candida albicans*

### PRECAUTIONS

- Comply with Good Laboratory Practice.

### QUALITY CONTROL

In light of the current harmonization of pharmacopoeias, we recommend you refer to the certificates of analysis for the procedures implemented for the quality control (performance and selectivity) of the media produced by Bio-Rad.

Every product manufactured and marketed by Bio-Rad is subject to a procedure of quality assurance at all stages, from reception of raw materials through to commercialisation of the end-product. Each batch of finished products undergoes quality control and is com-

1/2

mercialised only if it satisfies the criteria of acceptability.

Documentation relative to the production and control of each batch is kept on file.

#### KEY WORDS

LT 100/Total mesophilic aerobic bacteria/  
Cosmetics/Enumeration/Agar/Salts/Tween/  
Lecithin/Medium

#### BIBLIOGRAPHY

- **GUISNO, R., GIBBY, I.W., FOTER, M.J.** : A neutralizing medium for evaluation of the germicidal potency of the quaternary ammonium salts. Amer. J. Pharm. 118 : 320-323 (1946).
- **WILLIAMSON, P., KLIGMAN, A.M.** : A new method for the quantitative investigation of cutaneous bacteria. J. Inv. Dermatol, 45 : 498-503 (1965).