

Eugon LT 100 broth & agar

355-3003 / 355-3004
355-5767 / 355-5768
356-3997

DEFINITION

Medium used for the dilution and/or enrichment in cosmetics (broth) and for the enumeration of total mesophilic aerobic bacteria (agar).

STANDARDS

• ISO 18415 Cosmetics - Microbiology

Comprehensive detection of specified and non-specified micro-organisms.

• ISO 18416 Cosmetics - Microbiology

Detection of *C. albicans*.

• ISO 21148 Cosmetics - Microbiology

General instructions for microbiological examination.

• ISO 21149 Cosmetics - Microbiology

Enumeration and detection of aerobic mesophilic bacteria.

• ISO 21150 Cosmetics - Microbiology

Detection of *E. coli*. Cosmétiques
Microbiologie - Recherche d'*E. coli*

• ISO 22718 Cosmetics - Microbiology

Detection of *Staphylococcus aureus*

• ISO 22717 Cosmetics - Microbiology

Detection of *Pseudomonas aeruginosa*

• ISO/CD 16212 Cosmetics - Microbiology

General guidance for the enumeration of yeasts and molds.

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 (agar)

90 mm x 20 plates

code 356-3997

• Ready to use (broths)

9 ml x 25 tubes

50 ml x 6 bottles

100 ml x 6 bottles

250 ml x 6 bottles

code 355-5768

code 355-5767

code 355-3004

code 355-3003

STORAGE

• Pre-poured : + 2° to 8°C

• Ready to use : + 2° to 25°C

• Expiration date and batch number are shown on the package.

TYPICAL FORMULA

Broth EUGON LT 100

Pancreatic casein peptone	15 g
Papainic soy peptone	5 g
Sodium chloride	4 g
Cystine	700 mg
Sodium sulfite	200 mg
Glucose	5.5 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

EUGON 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

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

Eugon LT 100 broth & agar

PROTOCOL

• Inoculation and incubation

With 1 g or 1 ml of product to be analysed, prepare a stock suspension at 1/10th with the EUGON LT 100 broth. Leave to revitalize for 2 hours. Using this stock suspension, make successive dilutions with the EUGON LT 100 broth, up to 10⁻⁵ or 10⁻⁶.

Incubate at 32.5 °C ± 2.5°C for 20 to 72 hours.

Proceed with enumeration of the flora:

- by inoculation of Eugon LT 100 agar on a plate and incubate at 32.5 °C ± 2.5°C for 48 to 72 hours.

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

Anaerobic bacteria

Candida albicans

PRECAUTIONS

- Comply with Good Laboratory Practice.

QUALITY CONTROL

In light of the current work of ISO, we recommend you to 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 quality-assurance procedure at all stages, from the reception of raw materials to the marketing of the end-product. Each batch of finished product undergoes quality control and is marketed only if it satisfies the acceptability criteria.

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

KEY WORDS

EUGON LT 100/Total mesophilic aerobic bacteria/Cosmetics/Enumeration/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).