Condalab

Reference: 5068 **Technical Data Sheet**

Product: **EUGON LT100 BROTH**

Specification

Liquid medium used for the enrichment of aerobic bacteria including E. coli, in cosmetic products with and without preservatives according to ISO standards.

Presentation

	Packaging Details	Shelf Life	Storage
10 Prepared bottles Bottle 125 ml with: 90 ± 3 ml	1 box with 10 bottles 125 ml. metal-non injectable cap.	12 months	8-25°C

Composition

Composition (g/l):

Tryptone	15.00
Soy peptone	5.00
Polysorbate 80	5.00
Dextrose	5.50
Sodium chloride	4.00
Lecithin	1.00
Triton® X-100	1.00
L-Cysteine HCl	0.70
Sodium sulfite	0.20

Description /Technique

Descrption:

Eugon LT 100 Broth is a general culture medium that allows the growth of aerobic, and microaerophilic bacteria. Some anaerobic microorganisms will grow, due to the low Eh potential generated by the cysteine and sodium sulfite components.

The main use of this medium is for the total enumeration of microorganisms in cosmetic products by the Most Probable Number (MPN) method. The Triton® X-100 included in the formula enhances the release of microorganisms from the slack matrix of the cosmetic emulsion.

Lecithin and polysorbate act as neutralizers of preservatives like quaternary ammonium compounds, phenol and aldehydes derivatives.

Technique:

A 1:10 dilution of the sample is prepared using directly Eugon broth if the sample is soluble in water. If the sample is non-water soluble, it must emulsified with a suitable agent (e.g. Polysorbate 80). Once emulsified the sample is added to a suitable volume of Eugon broth (e.g. 1:10). If the sample is filterable it is recommended filtering it through a membrane filter with a nominal pore no greater than to 0,45 µm and washing it with defined volumes of water or diluent (Maximum Recovery Diluent). Immediately transfer the membrane to a suitable volume of the Eugon broth. The inoculated broth is incubated at 32,5 ± 2,5°C for 20-72 hours.

If enumeration by the MPN method is being carried out proceed as follows:

Prepare serial tenfold dilutions bank of the sample. Inoculate, incubate and enumerate as per the Most Probable Number Protocol. Carry out enumeration according to the appropriate tables in each case.

Quality control

Physical/Chemical control

Color : Yellowish-brown pH: 7 ± 2 at 25°C

Microbiological control

Prepare tubes - Inoculate: Practical range 100±20 CFU; Min. 50 CFU (Productivity).
Microbiological control according to ISO 11133:2014/ Adm 1:2018.
Aerobiosis. Incubation at 30-35°C. Reading at 18-72h

Microorganism	Growth
Stph. aureus ATCC® 25923, WDCM 00034	Good
Stph. epidermidis ATCC® 12228, WDCM 00036	Good
Ps. aeruginosa ATCC® 27853, WDCM 00025	Good
Bacillus subtilis ATCC® 6633, WDCM 00003	Good
Salmonella typhimurium ATCC® 14028, WDCM 00031	Good
Escherichia coli ATCC® 8739, WDCM 00012	Good

Sterility Control

Incubation 48 hours at 30-35°C and 48 hours at 20-25°C: NO GROWTH
Check at 7 days after incubation in same conditions

Bibliography

· GUISNO, R., I.W. GIBBY & M.J. FOTER (1946) A neutralizing medium for evaluation of the germicidal potency of the quaternary ammonium salts. Amer. J. Pharm. 118:320-323.
. ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
· ISO 16212 Standard (2017) Cosmetics - Microbiology - Enumeration of yeast and mould.
· ISO 21149 Standard (2017) Cosmetics - Microbiology - Enumeration and detection of aerobic mesophilic bacteria.
· ISO 21150 Standard (2015) Cosmetics - Microbiology - Detection of Escherichia coli.
· ISO 22717 Standard (2015) Cosmetics - Microbiology - Detection of Pseudomonas aeuruginosa.
· ISO 22718 Standard (2015) . Cosmetics - Microbiology - Detection of Staphylococcus aureus.
· WILLIAMSON, P. & A.M. KLIGMAN (1965) A new method for the quantitative investigation of cutaneous bacteria. J. Inv. Dermatol. 45:498-503.