Eugon LT 100 Agar

Cat. 2152

For the detection and enumeration of aerobic mesophilic bacteria in cosmetic products.

Practical information

Aplications	Categories
Enumeration with neutralizers	Mesophilic aerobic
Detection	Mesophilic aerobic

Industry: Cosmetics

Principles and uses

Eugon LT 100 Agar is a medium recommended for the detection of aerobic mesophilic bacteria after an enrichment step. It yields a high level of growth of microorganisms (eugonic growth).

This medium contains ingredients that neutralize inhibitory substances present in the sample, as lecithin and polysorbate 80.

L-Cystine and sodium sulfite are added to stimulate growth. Pancreatic digest of casein and papainic digest of soy bean provide nitrogen, vitamins, minerals and amino acids essential for growth. Glucose is the fermentable carbohydrate providing carbon and energy. Sodium chloride supplies essential electrolytes for transport and osmotic balance. Bacteriological agar is the solidifying agent.

The Norm ISO 21149 recommends inoculating the initial suspension of the sample of the cosmetic product in a selective liquid medium with neutralizing and dispersing agents (Eugon LT 100 Broth Cat. 2110).

Formula in g/L

Glucose	5,5	Bacteriological agar	15
L-Cystine	0,7	Lecithin	1
Pancreatic digest of casein	15	Papainic digest of soy bean	5
Polysorbate 80	5	Sodium chloride	4
Sodium sulfite	0,2		

Typical formula g/L * Adjusted and/or supplemented as required to meet performance criteria.

Preparation

Suspend 51,4 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121 ºC for 15 minutes. Cool to 45-50 ºC and dispense into Petri dishes.

Instructions for use

- Prepare the initial suspension from 1 mg or 1 ml of the sample and 9 ml of enrichment broth (1:10 dilution). Use a solubilizer if the sample is immiscible.
- Incubate at 32,5±2,5 ° C for at least 20 h.
- Transfer a defined amount of initial suspension to an Eugon LT 100 Agar plate. This step can be carried out by inclusion method, by seeding on the surface or by membrane filtration.
- Incubate the inverted plates at 32,5±2,5 ºC for 72±6 h.
- Perform the colony count.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25ºC)
w/o rests	Fine powder	Beige	Clear amber slightly opalescent	7,0±0,2

Microbiological test

Incubation conditions: (32,5±2,5 ºC / 72±6 h).

Microorganisms	Specification
Staphylococcus aureus ATCC 6538	Good growth
Escherichia coli ATCC 8739	Good growth
Pseudomonas aeruginosa ATCC 9027	Good growth

Storage

Temp. Min.:2 ºC
Temp. Max.:25 ºC

Bibliography

ISO 21149:2006 Cosmetics – Microbiology -- Detection and counting of mesophilic aerobic bacteria.

Additional information

Due to the composition of the Agar Eugon LT 100 and its hygroscopic properties, the powder could appear lumpy and moist. This phenomenon doesn't affect the microbiological performance of the medium.