Eugon LT100 Broth (i23545)

For the enrichment of aerobic bacteria including *E. coli*, in cosmetic products with and without preservatives according to ISO standards.

Industry: Cosmetics

Principles & Uses

Eugon LT 100 Broth Base, developed by Pelczar and Vera, is designed for cultivating fastidious microorganisms, including *Brucella*. It promotes eugonic (luxuriant) growth, which can be challenging to achieve with these organisms. This unenriched medium also supports the rapid growth of *lactobacilli*, commonly found in cured meat products, dairy items, and other foods. The composition is similar to Tryptone Soya Agar but encourages greater bacterial propagation. It's particularly effective for the growth of organisms like *Bordetella* and *Neisseria*, aided by the high sulfur and carbon sources in the formula. The medium includes ingredients, such as L-Cystine and sodium sulfite, to stimulate growth. Sodium chloride maintains osmotic balance, and the high carbohydrate content along with sulfur enhances chromogenicity. It contains components like lecithin and polysorbate 80 to neutralize inhibitory substances and can act as a neutralizing diluent. Glucose serves as the primary carbohydrate source. Sodium sulfite neutralizes aldehydes and Triton X-100 acts as a dispersing agent and aids in releasing microorganisms from the slack matrix of cosmetic emulsions.

Eugon LT100 broth used for the total enumeration of microorganisms in cosmetic products using the Most Probable Number (MPN) method.

Composition (gr/L)

Pancreatic Digest of Casein 15, Soybean meal 5, Sodium chloride 4, L-Cystine 0.7, Sodium Sulphite 0.2, Glucose 5.5, Tween 80 5.0, Lecithin 1, Triton X-100 1.

Final pH at 25°C 7.2 ± 0.2

Preparation from dehydrated Powder

Suspend 30.4g of part A in 1 Liter of distilled water. Mix thoroughly. Add 7 g of supplement solution containing tween 80. Heat with frequent agitation and boil for 1 minute to completely dissolve it completely. Autoclave at 121°C for 15 minutes. Cool as quickly as possible.

Quality Control

Dehydrated Appearance: Cream to yellow homogeneous free-flowing powder.

Prepared Appearance: Yellow colored, clear to very slightly opalescent solution.

Reaction of 3.74% Solution at 25°C: pH 7.2 ± 0.2

Cultural Response

Cultural characteristics observed after incubation at 35-37°C for 24 hours. (fungal cultures incubated at 25-30 °C for 2-7 days).

Organism (ATCC*)	Recovery
Escherichia coli (25922)	Good
Pseudomonas aeruginosa (27853)	Good
Staphylococcus aureus (25923)	Good
Candida albicans (10231)	Good

*ATCC is a registered trade mark of the American Type Culture Collection.

E. coli (left). *S. aureus* (right)

Storage

Keep the container at 15-30 °C. Store prepared medium at 2-8 °C.