

Eugon Broth

General purpose medium for cultivating a wide variety of microorganisms.

TYPICAL FORMULA*	(g/l)
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Pancreatic Digest of Casein	15.0
Papaic Digest of Soybean Meal	5.0
L-Cystine	0.7
Sodium Chloride	4.0
Sodium Sulfite	0.2
Glucose	5.5
Final pH 7.0 ± 0.2 at 25°C	

*Formula may be adjusted and/or supplemented as required to meet performance specifications.

DESCRIPTION

Eugon Broth is a highly nutritious, general purpose medium used for the cultivation of a wide variety of microorganisms from nonclinical samples.

This medium can be used with and without supplements.

Eugon Broth is the basal medium for the enrichment broth Eugon LT 100 Broth, which is recommended for the detection of many microorganisms and neutralization of preservative in cosmetic products. It complies with the requirements of ISO 16212, ISO 17516, ISO 18415, ISO 18416, ISO 21149, ISO 21150, ISO 22717 and ISO 22718.

The supplemented medium is not intended for use in the diagnosis of disease or other conditions in humans.

PRINCIPLE

Pancreatic digest of casein and papaic digest of soybean meal provide nitrogen, carbon, minerals and vitamins for microbial growth. L-cystine is an essential amino acid that along with sodium sulfite generates low Eh potential allowing the growth of some anaerobic organisms. Sodium chloride maintains the osmotic balance of the medium. Glucose is incorporated as a source of energy.

Eugon Broth can be enriched with Eugon Supplement (ref. 80120) containing the following ingredients:

- Egg Lecithin and Polysorbate 80 (Tween 80), which neutralize inhibitory substances present in the sample such as phenyl derivatives, aldehydes and quaternary ammonium salts.
- Sodium Lauryl Sulfate, a dispersing agent.

PREPARATION

1. Suspend 30.4 g of powder in 1 liter (*) of deionized or distilled water.
2. Bring to boil and shake until completely dissolved.
3. OPTIONAL Add 100 ml of Eugon Supplement, mix thoroughly.
4. Dispense the medium into 9 ml tubes or 90 ml bottles.
5. Sterilize in autoclave at 121°C for 15 minutes.
6. Let cool to room temperature.

*To prepare the enrichment broth, dissolve the powder in 900 ml of purified water.

NOTE: In any case (with or without supplement), the final volume is 1 000 ml.

TECHNIQUE

Following the procedure described by ISO 21149

For the detection of microorganisms by enrichment

1. Transfer the sample to an appropriate volume of enrichment broth, to obtain a 1/10 dilution (e.g. 1 g or 1 mL in 9 ml). If necessary, perform additional decimal dilutions using the same diluent.
 2. Incubate the suspension at $32.5 \pm 2.5^\circ\text{C}$ for at least 20 hours. The user is responsible for choosing the appropriate incubation temperature for the intended use, according to current ISO standards.
 3. Transfer 0.1 to 0.5 ml of the incubated suspension on the surface of an agar medium specific for the target microorganisms.
- NOTE: Do not invert the inoculated plate (or wait for the absorption of the incubated suspension by the agar before inverting).

For the enumeration of microorganisms

1. Dilute the sample in the broth, usually by 1/10.
- NOTE: The specimen must not remain in the broth for more than 45 minutes before inoculation onto the culture medium.
2. Perform successive dilutions in the broth, if necessary.
 3. Subculture onto the non-selective agar medium intended for the enumeration of the target microorganisms, such as TSA, by Pour-plate, Surface spread or Membrane filtration method.

INTERPRETATION OF RESULTS

Refer to the instructions for use of the medium used.



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STORAGE

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared tubes/bottles at 2-8°C away from light.

WARNING AND PRECAUTIONS

The product is designed for professional use only and must be used by properly trained operators.

Please consult the Safety Data Sheet (SDS) for information regarding hazards and safe handling practices.







DISPOSAL OF WASTE

Disposal of waste must be carried out according to the national and local regulations in force.

REFERENCES

1. ISO 16212 Cosmetics – Microbiology – Enumeration of yeast and mould.
2. ISO 17516 Cosmetics – Microbiology – Microbiological limits.
3. ISO 18415 Cosmetics – Microbiology – Detection of specified and non-specified microorganisms.
4. ISO 18416 Cosmetics – Microbiology – Detection of *Candida albicans*.
5. ISO 21149 Cosmetics – Microbiology – Enumeration and detection of aerobic mesophilic bacteria.
6. ISO 21150 Cosmetics – Microbiology – Detection of *Escherichia coli*.
7. ISO 22717 Cosmetics – Microbiology – Detection of *Pseudomonas aeruginosa*.
8. ISO 22718 Cosmetics – Microbiology – Detection of *Staphylococcus aureus*.
9. Vera, H. D. (1947) The ability of peptones to support surface growth of lactobacilli. J. Bacteriol. 54:14.
10. 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.

TABLE OF SYMBOLS

LOT	Batch code		Consult instructions for use		Manufacturer		Use by
REF	Catalogue number		Temperature limitation		Contains sufficient for <n> tests		Keep away from sunlight


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PRODUCT SPECIFICATIONS

NAME

Eugon Broth

PRESENTATION

Dehydrated medium

STORAGE

10-30°C

PACKAGING

Ref.	Content	Packaging
610341	500 g	500 g of powder in plastic bottle

pH OF THE MEDIUM

7.0 ± 0.2

USE

Eugon Broth is a general purpose medium used for the cultivation of a wide variety of microorganisms. When Eugon Supplement is added, the final medium is used to disperse the sample and to increase the initial microbial population while allowing the neutralization of preservatives in the cosmetic product

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM

Powder medium

Appearance: free-flowing, homogeneous

Colour: beige

Ready-to-use medium

Appearance: clear, may have a slight precipitate

Colour: light amber

SHELF LIFE

4 years

QUALITY CONTROL

- Control of general characteristics, label and print
- Microbiological control
 - Microbiological performances of the unsupplemented medium
Inoculum: 50-100 CFU
Incubation: 24-72 h at 32.5 ± 2.5°C

Microorganism		Growth
<i>Bacillus subtilis</i>	ATCC® 6633	Good
<i>Staphylococcus aureus</i>	ATCC® 6538	Good
<i>Escherichia coli</i>	ATCC® 8739	Good
<i>Pseudomonas aeruginosa</i>	ATCC® 9027	Good
<i>Aspergillus brasiliensis</i>	ATCC® 16404	Good
<i>Candida albicans</i>	ATCC® 10231	Good

- The efficacy of neutralizers in the medium enriched with Eugon Supplement is checked as follows:
Inoculum: 50-100 CFU
Incubation: 20 h at 32.5 ± 2.5°C

Microorganism		Specification
<i>Staphylococcus aureus</i> + AAP	ATCC® 6538	Recovery rate ≥ 50% on TSA
<i>Pseudomonas aeruginosa</i> + AAP	ATCC® 9027	Recovery rate ≥ 50% on TSA

AAP: Antimicrobial Activity Product



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