

# Tryptic Soy Broth + Capitol 4

Liquid medium for microbiological testing of cosmetic products.

TYPICAL FORMULA	(g/l)
Pancreatic Digest of Casein	12.75
Papaic Digest of Soybean Meal	2.25
Sodium Chloride	3.75
Glucose	1.88
Potassium Phosphate Dibasic	1.88
Polysorbate 80	35.00
Peptone	2.50
Lecithin	5.00
Tamol	7.50
Final pH 7.2 ± 0.2	

### DESCRIPTION

Tryptic Soy Broth + Capitol 4 is a liquid medium recommended for the microbiological testing of cosmetic products. This medium consists of a mix of tryptic soy broth (75%) and Capitol 4 (25%), a formula particularly suitable for testing of viscous samples.

### PRINCIPLE

Pancreatic digest of casein and papaic digest of soybean meal are sources of peptides and free amino acids. Glucose is a energy source easy to use by microorganisms. Sodium chloride maintains the osmotic balance of the medium. Dibasic potassium phosphate acts as buffer to pH control. Capitol 4 supplement consists of polysorbate 80, peptone, lecithin and tamol allowing a good dispersion of the sample and the neutralization of preservative systems.

### PREPARATION

Verify that the contents of the bottle is homogeneous and clear, gently inverting the bottle few times (avoid foam formation). The medium can be used as such or divided, under aseptic conditions, in lower aliquots.

### TECHNIQUE

Inoculate directly the sample into the medium. Incubate at 32.5 ± 2.5°C for up to 72 hours. Otherwise, use Tryptic Soy Broth + Capitol 4 as a dilution solution for samples containing preservatives, prior to inoculate the medium of choice (wait at least for 20 minutes before carrying on the test).

### INTERPRETATION OF RESULTS

The presence of turbidity compared to an uninoculated control or a pellicle formation indicate microbial growth.

#### STORAGE

10-25°C away from light, until the expiry date on the label or until signs of deterioration or contamination are evident.

#### WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product is designed for professional use only and must be used by properly trained operators.

### DISPOSAL OF WASTE

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

### REFERENCES

- United States Pharmacopeial Convention (2014) The United States Pharmacopeia 38/National Formulation 33, Supp. 2. Chapter <61> Microbiological examination of non-sterile products: Microbial enumeration tests and Chapter <62> Microbiological examination of non-sterile products: Test for specified products. Chapter <71> Sterility Tests. Rockville, Md., USA.
- European Directorate for the Quality of Medicines and Healthcare (2014) The European Pharmacopoeia. 8th Ed. Chapter 2.6.12 Microbiological examination of non-sterile products: Microbial enumeration tests and Chapter 2.6.13 Microbiological examination of non-sterile products: Test for specified products. Strasbourg, France.
- 3. Japanese Ministry of Health, Labour and Welfare (2011) The Japanese Pharmacopoeia. 16th Ed. Chapter
- 4.05 Microbial Limit Test I. Microbiological examination of non-sterile products: Total viable aerobic count and II. Microbiological examination of non-sterile products: Test for specified products. Japanese Ministry of Health, Labour and Welfare. Tokyo, Japan.
- Association of Official Analytical Chemists. (1995). Bacteriological analytical manual 8th ed. AOAC International, Gaithersburg, MD
- 6. MacFaddin, J.D. (1985) Media for isolation-cultivation-identification-maintenance of medical bacteria, p. 797, vol. 1. Williams & Wilkins, Baltimore, MD.



LIOFILCHEM<sup>®</sup> S.r.l.



# NAME

Tryptic Soy Broth + Capitol 4

### PRESENTATION

Glass bottles containing liquid culture medium

## STORAGE

10-25°C

### PACKAGING

Ref.	Content	Packaging
442090	6 x 90 ml bottles	6 bottles in cardboard box
442150	6 x 190 ml bottles	6 bottles in cardboard box
463080	6 x 490 ml bottles	6 bottles in cardboard box
463010	6 x 990 ml bottles	6 bottles in cardboard box

## pH OF THE MEDIUM

 $7.2 \pm 0.2$ 

### USE

Tryptic Soy Broth + Capitol 4 is a liquid medium consisting of a mix of tryptic soy broth (75%) and Capitol 4 (25%) which is recommended for the microbiological testing of cosmetic products

Growth

### TECHNIQUE

Refer to technical sheet of the product

### APPEARANCE OF THE MEDIUM

Clear to very slightly opalescent, light amber to amber

## SHELFLIFE

2 years

## QUALITY CONTROL

1. Control of general characteristics, label and print

- Sterility control 7 days at 22.5 ± 2.5°C, in aerobiosis 7 days at 32.5 ± 2.5°C, in aerobiosis
- Microbiological control Inoculum for productivity: ≤100 CFU Incubation Conditions: 24-48 h at 32.5 ± 2.5°C, in aerobiosis

## Microorganism

Staphylococcus aureus	ATCC® 6538	Good
Escherichia coli	ATCC® 8739	Good
Pseudomonas aeruginosa	ATCC® 9027	Good
Bacillus subtilis	ATCC® 6633	Good
Salmonella Typhimurium	ATCC® 14028	Good
Candida albicans	ATCC® 10231	Good

## TABLE OF SYMBOLS

LOT Batch code	8	Do not reuse		Manufacturer	$\Sigma$	Use by	Ţ	Fragile, handle with care
<b>REF</b> Catalogue number	$\mathbf{r}$	Temperature limitation	$\bigvee_{\Sigma}$	Contains sufficient for <n> tests</n>		Caution, see instructions for use		

