

MLEB(Modified Letheen Broth)

Catalog : HB8604-3-250

MLEB(Modified Letheen Broth) is used for microbial detection in cosmetics.

Approximate Formula:

Ingredients	gm/liter
Letheen Broth	25.7
Peptone	5.0
Proteose Peptone No.3	10.0
Yeast Extract	2.0
Sodium Bisulfite	0.1
Final pH7.2±0.2 at 25℃	

*Adjusted and/or supplemented as required to meet performance criteria.

Directions:

Suspend 42.8g of the medium in one liter of distilled water or deionized water. Mix well and heat with frequent agitation to completely dissolve the powder. Dispense into tubes. Sterilize in an autoclave at 121℃(15 lbs.) for 15 minutes.

Principle and Interpretation:

Beef extract ,proteose peptone and peptone provide carbon and nitrogen sources required for good growth of a wide variety of bacteria and fungi. Vitamins and cofactors, required for growth as well as additional sources of nitrogen and carbon, are provided by yeast extract. Sodium chloride provides a suitable osmotic environment. Lecithin and Tween 80 can neutralize preservatives and disperse substances in emulsion, lecithin can neutralize quaternary ammonium salt, Tween 80 can neutralize phenol, hexachlorophenol, formalin, and the combination of both can neutralize ethanol. Sodium bisulfite partially neutralize the preservative systems commonly found in cosmetics.

Appearance:

Dehydrated medium is a free-flowing yellowish powder. The prepared medium is a kind of yellowish transparent liquid.

Precautions:

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

Storage conditions and Shelf life:

MLEB(Modified Letheen Broth) must be stored tightly capped in the original container at 5-30℃. The dehydrated medium has a shelf life of 5 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8℃.

Quality control:

Prepare the culture medium as per label directions. Inoculate and incubate at 36 ± 1℃ for 24 hours.

Microorganism	Strains Number	Inoculum (CFU)	Growth
<i>Staphylococcus aureus</i>	ATCC 6538	10-100	Luxuriant
<i>Pseudomonas aeruginosa</i>	ATCC 9027	10-100	Luxuriant
<i>Escherichia coli</i>	ATCC 25922	10-100	Luxuriant
<i>Salmonella typhimurium</i>	ATCC 14028	10-100	Luxuriant

References:

- 1.U.S. Food and Drug Administration. 2001. Bacteriological analytical manual, online. AOAC International,Gaithersburg, Md.
- 2.ISO 21149-2006 cosmetics-Microbiology-Enumeration and detection of aerobic mesophilic bacteria
- 3.ISO 21150-2006 Cosmetics-Microbiology-Detection of *Escherichia coli*
- 4.ISO 22718-2006 Cosmetics-Microbiology-Detection of *Staphylococcus aureus*
- 5.ISO 22717-2006 Cosmetics-Microbiology-Detection of *Pseudomonas aeruginosa*
- 6.ISO 18416-2006 Cosmetics-Microbiology-Detection of *Candida albicans*