Condalab

Reference: 5162 **Technical Data Sheet**

Product: **LETHEEN AGAR MODIFIED**

Specification

Solid medium for the primary screening of microorganisms in cosmetics according to the FDA.

Presentation

	Packaging Details	Shelf Life	Storage
10 Prepared bottles Bottle 250 ml with: 200 ± 5 ml	1 box with 10 bottles 200 ml, metal-non injectable cap.	12 months	8-25°C

Composition

Composition (g/l):

Casein peptone	10,0
Meat peptone	10,0
Meat extract	3,0
Yeast extract	2,0
Dextrose	1,0
Lecithin	1,0
Sodium chloride	5,0
Sodium bisulfite	0,1
Agar	20,0
Polysorbate 80	7.0

Description /Technique

In the early 40's, Weber and Black recommended the use of lecithin and polysorbates to neutralize the antimicrobial action of the Quaternary Ammonium Compounds (QAC's).
In 1965 the methodology was accepted by the AOAC for the antimicrobial assays and extends their use to all the cationic surfactants (detergents). The TAT (Tryptone-Azolectin-Polysorbate) medium, in the Newburger Cosmetic Analysis Manual, (2nd ed., 1977) is similar in composition and uses the AOAC formulation. In 1978 the FDA (Bacteriological Analytical Manual, 5th ed., 1978) incorporated it as primary presumptive and enrichment medium for all microbial examinations of cosmetics.
The present formulation appears in the 8th ed. (1998) of the BAM and the notable modifications are the inclusion of sodium chloride providing suitable osmotic pressure and a increased amount of peptones and tissue extracts to promote good growth, these transforms this medium into a very rich all-purpose medium suitable for neutralizing almost all preservatives present in samples for examination.

Technique:
To use, the contents of the bottle should be poured into plates. The melting of the culture medium should be carried out according to the manufacturer's instructions, either in a water bath (100°C) or microwave oven. Before melting any medium loosen the screwcap of the container to avoid breaking the container. The medium should be melted only once and used. Media with agar should not be melted repeatedly as their characteristics change with each remelting. Overheating should be avoided as much as prolonged heating, especially with regard to media with an acidic or alkaline pH.

Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.

Spread the plate streaking methodology or by spiral methodIncubate the plates right side up aerobically at 35+/-2°C for 24-48h. (Incubation times longer than those mentioned above or different incubation temperatures mey be required depending on the sample, on the specifications,...)
Each laboratory must evaluate the results according to their specifications.
Calculate total microbial count per ml of sample by multiplying the average number of colonies per plate by the inverse dilution factor if streaked a dilute sample. Report results as Colony Forming Unit (CFU's) per ml or g along with incubation time and temperature.

Quality control

Physical/Chemical control

Color : Yellowish-brown pH: 7.2 ± 0.2 at 25°C

Microbiological control

Melting - pour plates - inoculation Practical range 100±20 CFU; Min. 50 CFU (Productivity) / 10^4-10^6 CFU (Selectivity)
Microbiological control according to ISO 11133:2014/ Adm 1:2018.

Aerobiosis. Incubation at 32.5 ± 2.5 °C, reading after 24-72 hours.

Microorganism	Growth
Candida albicans ATCC® 10231, WDCM 00054	Good (≥70 %)
Escherichia coli ATCC® 8739, WDCM 00012	Good (≥70 %)
Ps. aeruginosa ATCC® 9027, WDCM 00026	Good (≥70 %)
Bacillus subtilis ATCC® 6633, WDCM 00003	Good (≥70 %)
Stph. aureus ATCC® 25923, WDCM 00034	Good (≥70 %)

Sterility Control

Incubation 24h at 30-35 °C and 72h at 20-25°C: - NO GROWTH
Incubation 7 days at 30-35°C: - NO GROWTH

Bibliography

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