TM 1349 - HC AGAR BASE

INTENDED USE
For enumeration of molds in cosmetic products supplemented with Polysorbate 80.

PRODUCT SUMMARY AND EXPLANATION
Cosmetics do not need to be sterile but they must be adequately preserved. Microbial contamination to cosmetics is a substantial risk to product quality, regulatory compliance and consumer health. HC Agar Base, formulated by Mead and O'Neill, is used for enumerating moulds in cosmetic products. This medium differs from the traditionally used media for testing cosmetics products by addition of Polysorbate 80 and incubation time of 3 days, rather than 7 days, at 27°C ± 0.5°C to obtain a significant mold count.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	2.500
Proteose peptone	2.500
Yeast extract	5.000
Dextrose (Glucose)	20.000
Disodium hydrogen phosphate	3.500
Potassium dihydrogen phosphate	3.400
Ammonium chloride	1.400
Magnesium sulphate	0.060
Sodium carbonate	1.000
Chloramphenicol	0.100
Agar	15.000

PRINCIPLE
HC Agar Base contains tryptone and proteose peptone, which serve as sources of carbon, nitrogen, vitamins and minerals. Yeast extract acts as a source of B-complex vitamins that helps to stimulate bacterial growth. Dextrose serves as a source of energy by being the fermentable carbohydrate. Ammonium chloride and magnesium sulphate provide essential ions. Phosphates buffer the medium. Sodium carbonate helps to inactivate the low levels of preservatives if present (e.g. benzoic acid). Chloramphenicol inhibits accompanying bacteria, including *Pseudomonas aeruginosa* and *Serratia marcescens.* Polysorbate 80 also neutralizes preservatives and sequesters surfactants that may be present in the sample.

INSTRUCTION FOR USE
- Dissolve 54.46 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Add 20 ml of Polysorbate 80.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Pale yellow to beige homogeneous free flowing powder.
Appearance of prepared medium : Medium amber coloured with yellow tinge, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.0±0.2

INTERPRETATION
Cultural characteristics observed after an incubation.

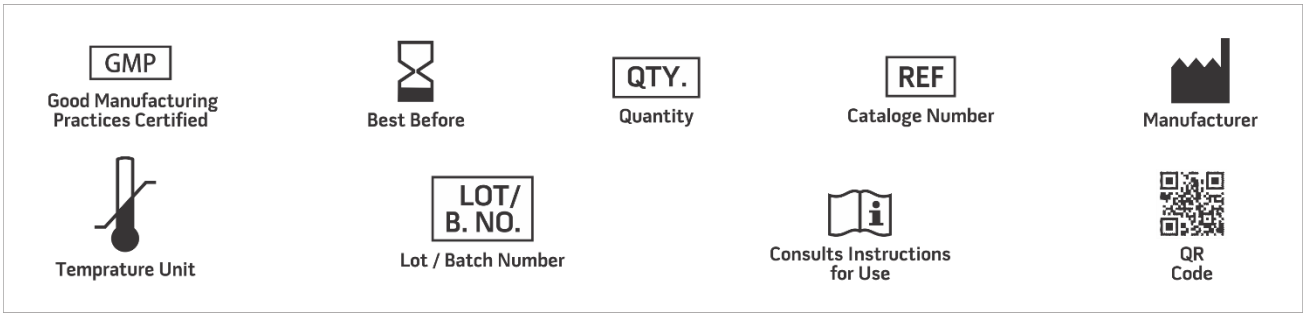
Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Aspergillus brasiliensis	16404	10-100	Good	40-50%	27.5 ± 0.5°C	65-72 Hours
Pseudomonas aeruginosa	27853	50-100	None-poor	0-10%	27.5 ± 0.5°C	65-72 Hours
Serratia marcescens	8100	50-100	None-poor	0-10%	27.5 ± 0.5°C	65-72 Hours

PACKAGING:
In pack size of 500 gm bottles.

STORAGE
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES
1. Brannan D. K., (Ed.), Cosmetic Microbiology, A Practical Handbook, CRC Press
2. FDA Bacteriological Analytical Manual, 2005, 18th Ed., AOAC, Washington, D.C. Composition
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
5. Mead C. and ONeill J., 1986, J. Soc. Cosmet Chem., 37:49-5.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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