TM 498 – YEAST GLUCOSE CHLORAMPHENICOL AGAR (IS: 5403:1999 REAFFIRMED 2005)

INTENDED USE

For selective enumeration of yeasts and molds in milk and milk products.

PRODUCT SUMMARY AND EXPLANATION

Chloramphenicol Yeast Glucose Agar is a selective medium recommended for isolation and enumeration of fungi-yeasts and moulds in milk and milk products. Recently this medium has been recommended by ISO committee for the enumeration of yeasts and moulds.

COMPOSITION

Ingredients	Gms / Ltr
Yeast Extract	5.000
Dextrose (Glucose)	20.000
Chloramphenicol	0.100
Agar	14.900

PRINCIPLE

The medium contains yeast extract, which provides nitrogenous nutrients and vitamin B complex. Dextrose is the energy source. Chloramphenicol, a thermostable antibiotic, suppresses accompanying bacterial flora. This improves shelf life of the prepared medium and the prepared medium can be used over a period of at least 4 months. Technique: Take two sterile Petri plates and transfer 1 ml of sample (if liquid) or 1 ml of the initial suspension in case of other products. Further take another two sterile plates and transfer 1 ml of 10-1 dilution to each sterile Petri plate or 1 ml of 10-2 dilution for other products. Repeat the procedure using further dilutions if necessary. Pour about 15 ml of Chloramphenicol Yeast Glucose Agar previously melted and maintained at 45 ± 1°C. The time elapsing between the end of the preparation of the initial suspension and the moment when the medium is poured into the dishes shall not exceed 15 minutes. Carefully mix the inoculum with the medium and allow it to solidify. Prepare control plate to check the sterility. Incubate the plates at 25 ± 1°C. Count the colonies on each plate after 3, 4 and 5 days of incubation. It is necessary to carry out a microscopic examination in order to distinguish, according to their morphology, the colonies of yeast and moulds from colonies of bacteria.

It is advisable to examine the plates at the end of three days for yeast colonies, as they are likely to be overgrown by mould growth. Make a separate count of yeast colonies, which are characterized, as smooth, moist, elevated surface colonies. Count mould colonies, which are recognized by their profused growth of hyphae. If only yeast counts are required, add 0.25% of sterile sodium propionate solution to the medium at the time of preparation of plates to inhibit the growth of moulds.

INSTRUCTION FOR USE

- Dissolve 40 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 lbs 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 : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Yellow coloured, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 6.6 ± 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-luxuriant	>=50%	22-25°C	2-5 days
Escherichia coli	25922	>=10^3	Inhibited	0%	22-25°C	2-5 days
Candida albicans	10231	10-100	Good-luxuriant	>=50%	22-25°C	2-5 days
Saccharomyces cerevisiae	9763	10-100	Good-luxuriant	>=50%	22-25°C	2-5 days

PACKAGING:

In pack size of 100 gm and 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.

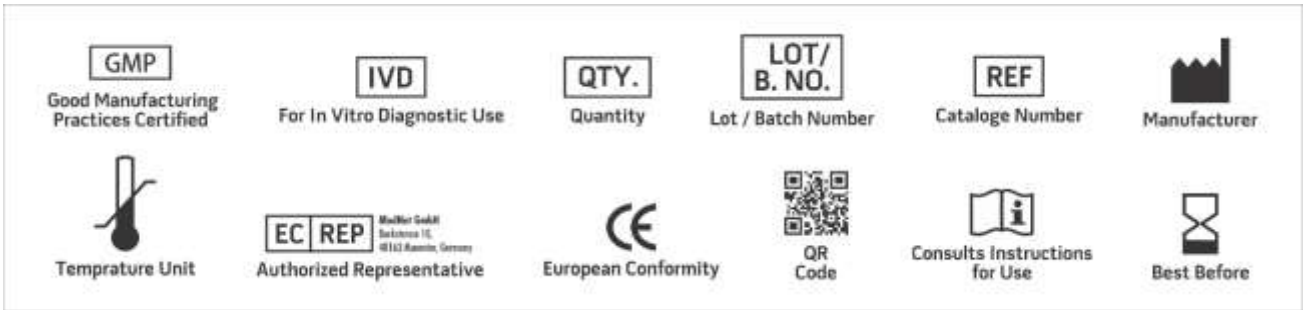
DISPOSAL

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

REFERENCES

1. DIN Deutsches Institut fur Normung e.v. Reterenzverfahren DIN 10186.
2. International Organization for Standardization (ISO), Draft ISO/DIS 6611.
3. Internationaler Milchwirtschaftsverband: Internationaler IMV-Standard 94 1980.
4. International Organization for Standardization (ISO), 1987, Draft ISO/DIS 7954.

5. Engel G., 1982, Milchwiss, 37:727. 6. International Organization for Standardization (ISO), 1999, ISO 5403 :1999.



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

***For Lab Use Only**

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