

## TECHNICAL DATA SHEET

# CHLORAMPHENICOL GLUCOSE AGAR

### ENUMERATION OF YEASTS AND MOLDS

## 1 INTENDED USE

Chloramphenicol Glucose Agar is destined for the detection and enumeration of yeasts and molds in food products. The typical composition responds to that defined in the standards NF V08-059, ISO 6611 and NF EN 15789.

## 2 PRINCIPLES

Yeast extract and glucose favor the growth of yeasts and molds.

The presence of chloramphenicol, a heat-stable antibiotic, inhibits the growth of contaminating bacteria.

## 3 TYPICAL COMPOSITION

The composition can be adjusted in order to obtain optimal performance.

For 1 liter of media :

- Yeast extract .....	5,0 g
- Glucose .....	20,0 g
- Chloramphenicol .....	0,1 g
- Bacteriological agar.....	15,0 g

pH of the ready-to-use media at 25 °C : 6,6 ± 0,2.

## 4 PREPARATION

### Preparation of dehydrated media :

- Dissolve 40,1 g of dehydrated media (BK007) in 1 liter of distilled or demineralized water.
- Slowly bring to boiling, stirring with constant agitation until complete dissolution.
- Dispense in to vials at 100 mL per vial.
- Sterilize in an autoclave at 121 °C for 15 minutes.
- Cool and maintain the molten media at 44-47 °C.

✓ **Reconstitution :**  
40,1 g/L

✓ **Sterilization :**  
15 min at 121 °C

### Use of ready-to-melt media :

- With the ready-to-use media (BM021 or BM079), melt the agar for the minimum amount of time necessary to achieve total liquefaction.
- Cool and maintain the media in molten state at 44-47 °C.

### Note :

The extemporaneous addition of Gentamicin (freeze-dried supplement BS009) to the media is possible according to the standard V08-059. It increases the selectivity of the media, particularly effective in the presence of Gram negative contaminants in meat and in raw seafood.

In this case, add 2 mL of rehydrated supplement, reconstituted with 5 mL sterile distilled water, per 100 mL of base media.

## 5 INSTRUCTIONS FOR USE

- Transfer 1 mL of the product to analyze and its serial tenfold dilutions to sterile Petri dishes.
- Pour roughly 15 mL of media per plate.
- Homogenize by swirling and let solidify on a cold surface.
- Incubate at  $25 \pm 1$  °C for 5 days. Do not invert the plates during incubation, so as to not erroneously count mold spores during successive operations.

✓ **Inoculation :**  
1 mL in pour plates

✓ **Incubation :**  
5 days at 25 °C

### Notes :

- In the context of standard NF V08-059, the count scan also be performed on the surface of pre-poured plates. In this case, inoculate 0,1 mL of the appropriate serial dilution onto the surface of pre-poured plate. The incubation temperature may be 20 or 22°C, in the case of the enumeration of known yeasts and molds, with the accord of both parties.
- For the isolation and enumeration of yeast probiotic strains, the standard NF EN 15789 advises incubation at  $35 \pm 1$  °C for 2 days.

## 6 RESULTS

Separately count yeasts and molds..

Carry out a confirmation test under the microscope on each type of colony encountered..

## 7 QUALITY CONTROL

**Dehydrated media :** beige powder, free-flowing and homogeneous.

**Prepared media :** amber agar.

Typical culture response after 72 hours of incubation at 25 °C (NF EN ISO 11133) :

Microorganisms		Growth (Productivity Ratio : $P_R$ )
<i>Saccharomyces cerevisiae</i>	WDCM 00058	$P_R \geq 50$ %
<i>Candida albicans</i>	WDCM 00054	$P_R \geq 50$ %
<i>Aspergillus brasiliensis</i>	WDCM 00053	$P_R \geq 50$ %
<i>Escherichia coli</i>	WDCM 00013	Inhibited
<i>Bacillus subtilis</i>	WDCM 00003	Inhibited

## 8 STORAGE / SHELF LIFE

**Dehydrated media :** 2-30 °C.

**Ready-to-melt media in vials :** 2-8 °C.

The expiration date is indicated on the label.

**Prepared media in vials (\*) :** 180 days at 2-8 °C

**Prepared media in tubes (\*) :** 30 days at 2-8 °C.

(\*) Benchmark value determined under standard preparation conditions, following manufacturer's instructions.

## 9 PACKAGING

**Dehydrated media :**

500 g bottle ..... BK007HA

**Ready-to-melt media :**

10 x 100 mL vials ..... BM02108

10 x 200 mL vials ..... BM07908

**Gentamicin (25 mg) Selective supplement :**

10 vials ..... BS00908

## 10 BIBLIOGRAPHY

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NF V08-059. Novembre 2002. Microbiologie des aliments. Dénombrement des levures et moisissures par comptage des colonies à 25°C. Méthode de routine.

ISO 6611. Octobre 2004. Lait et produits laitiers. Dénombrement des unités formant colonie de levures et/ou moisissures. Comptage des colonies à 25°C.

NF EN 15789. Décembre 2009. Aliments des animaux. Isolation et dénombrement de souches probiotiques de levures (*Saccharomyces cerevisiae*).

## 11 ADDITIONAL INFORMATION

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The information provided on the labels take precedence over the formulations or instructions described in this document and are susceptible to modification at any time, without warning.

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