TECHNICAL DATA SHEET

WORT AGAR (BASE)

DETECTION AND ENUMERATION OF YEASTS AND MOLDS

1 INTENDED USE

Wort Agar is used for the growth, isolation and enumeration of yeasts and molds. It is particularly well adapted to the enumeration of osmophilic yeasts in butter, sugar, syrups, lemonade and more generally in sweet beverages.

2 HISTORY

Parfitt successfully developed this medium for the enumeration of yeasts in butter and syrups.

3 PRINCIPLES

Yeasts grow well in media containing maltose, especially at an acid pH.

The formula of the medium simulates the composition of wort, which favors the growth of yeasts.

The acidity of the medium inhibits most bacterial species.

4 TYPICAL COMPOSITION

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

For 1 liter of media :

- Pancreatic digest of meat ..... 0,78 g
- Malt extract ..... 15,00 g
- Maltose ..... 12,75 g
- Dextrin ..... 2,75 g
- Dipotassium phosphate..... 1,00 g
- Ammonium chloride ..... 1,00 g
- Glycerol ..... 2,35 g
- Bacteriological agar ..... 15,00 g

For 48,3 g of dehydrated base media BK013

- Pancreatic digest of meat ..... 0,78 g
- Malt extract ..... 15,00 g
- Maltose ..... 12,75 g
- Dextrin ..... 2,75 g
- Dipotassium phosphate ..... 1,00 g
- Ammonium chloride ..... 1,00 g
- Bacteriological agar ..... 15,00 g

Glycerol :
Not furnished

5 PREPARATION

- Dissolve 48,3 g of dehydrated media (BK013) in 1 liter of distilled or demineralized water.
- Add 2,35 g of glycerol.
- Slowly bring to boiling, stirring with constant agitation until complete dissolution.
- Dispense in tubes or flasks.
- Sterilize in an autoclave at 110°C for 15 minutes.
- Cool the media and keep in a molten state at 44-47 °C.
- Adjust the pH to 4.8 by adding sterile 10% lactic or tartaric acid.
- Maintain the media at 44-47 °C.

✓ **Reconstitution :**
48,3 g/L
+ 2,35 g of glycerol

✓ **Sterilization :**
15 min at 110 °C

Note :
For more selective use, the pH can be adjusted to 4.5 or 3.5. Never heat the medium after adding acid to prevent the loss of the gelling properties of the agar.

6 INSTRUCTIONS FOR USE

- Transfer 1 mL of the product to analyze and its serial dilutions to sterile Petri plates.
- Pour 10 to 15 mL of molten media.
- Homogenize by swirling.
- Let solidify on a cold, flat surface.
- Incubate at 20-25 °C for 3 to 5 days.

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

✓ **Incubation :**
3 to 5 days at 20-25 °C

7 RESULTS

Separately count yeasts and molds. Carry out a microscopic confirmation test on each type of colony encountered.

8 QUALITY CONTROL

Dehydrated media : beige powder, free-flowing and homogeneous.
Prepared media : amber agar, may present a slight flocculent after autoclaving.

Typical culture response after 72 hours of incubation at 25 °C, inoculation in pour plates :

Microorganisms		Growth (Productivity ratio : P_R)
Saccharomyces cerevisiae	WDCM 00058	$P_R \geq 70$ %
Candida albicans	WDCM 00054	$P_R \geq 70$ %
Aspergillus brasiliensis	WDCM 00053	$P_R \geq 70$ %

9 STORAGE / SHELF LIFE

Dehydrated base media : 2-30 °C.
The expiration date is indicated on the label.

Complete media in vials (*): 180 days at 2-8 °C.
Complete prepared media in plates (*): 30 days at 2-8 °C.
(*) Benchmark value determined under standard preparation conditions, following manufacturer's instructions.

10 PACKAGING

Dehydrated media (without glycerol) :
500 g bottle BK013HA

11 BIBLIOGRAPHY

Parfitt, E.H.. 1933. The influence of media upon the yeast and mould count of butter. Journal of Dairy Science, 16 : 141-147.

12 ADDITIONAL INFORMATION

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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