

# **Wort Agar**

Medium for detection and cultivation of yeasts and molds.

### **DESCRIPTION**

Wort Agar is a medium used for the isolation, cultivation and enumeration of microorganisms in raw materials, beverages, sugar concentrates, foods and other products.

TYPICAL FORMULA	(g/ <b>l</b> )
Malt Extract	15.0
Peptone	0.78
Maltose	12.75
Dextrin	2.75
Glycerol	3.15
Potassium Phosphate Monobasic	0.4
Ammonium Chloride	1.0
Agar	20.0
F:	

Final pH 5.0  $\pm$  0.2 at 25°C

### METHOD PRINCIPLE

Malt extract and peptone provide amino acids, carbon, nitrogen and minerals for organisms growth. Maltose and dextrin are the fermentable carbohydrates. Glycerol reduces the water activity from 0.999 to 0.95, thereby reducing bacterial growth. Potassium phosphate is the buffer. Ammonium chloride is a source of nitrogen. Agar is the solidifying agent. The acid pH inhibits the growth of most bacteria favoring the recover of acid-tolerant microorganisms such as fungi.

# **PREPARATION**

Medium in bottles

Melt the content of the bottle in a water bath at 100°C (loosing the cap partially removed) until completely dissolved. Then screw the cap and check the homogeneity of the dissolved medium, if it is the case turning the bottle upside down. Cool at 45-50°C, mix well avoiding foam formation and aseptically distribute into Petri dishes.

## **TEST PROCEDURE**

Inoculate the medium by pour plating, spread plating or membrane filtration method. Incubate aerobically for up to 7 days at 20-25°C or at 30-35°C depending on the target of the investigation.

# **INTERPRETING RESULTS**

Examine for microbial growth and count the developed colonies.

# **APPEARANCE**

Slightly opalescent, light amber.

### STORAGE

Store bottles and prepared plates at 10-25°C away from light. Do not use the product beyond its expiry date on the label or if product shows any evidence of contamination or any sign of deterioration.

### **SHELF LIFE**

Medium in bottles: 2 years. Ready-to-use plates: 6 months.

# **QUALITY CONTROL**

The plates are inoculated with the microbial strains indicated in the QC table.

Inoculum for productivity: 50-100 CFU.

Incubation conditions: aerobically at 30-35°C for 40-48 hours.

# QC Table.

Microorganism		Growth
Saccharomyces cerevisiae	ATCC® 9763	Good
Candida albicans	ATCC® 10231	Good
Aspergillus brasiliensis	ATCC® 16404	Good

### WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product is intended for professional use only and must be used by properly trained operators.

# **DISPOSAL OF WASTE**

Disposal of waste must be carried out according to national and local regulations in force.

# **BIBLIOGRAPHY**

- 1. Parfitt, E.H. (1993) J. Dairy Sci. 16: 141-147.
- 2. Scarr M. Pamela (1959) J. Sci. Food Agric. 10 (12): 678-681.

PRESENTATION		Contents	Ref.
Wort Agar	60 mm ready-to-use plates	20 plates	163802
Wort Agar	Bottles	6 x 200 ml bottles	432300

# TABLE OF SYMBOLS LOT Batch code Keep away from sunlight Manufacturer Use by Fragile, handle with care Temperature limitation Temperature constant for consult Instruction For Use Do not reuse