# Product Name: Beer Universal Agar

Medium for isolation of beer spoilage organisms.

# TYPICAL FORMULA (G/L)

Peptonised Milk	15.0
Yeast Extract	6.1
Tomato Juice	12.2
Glucose	16.1
Dipotassium Phosphate	0.31
Monopotassium Phosphate	0.31
Magnesium Sulfate	0.12
Sodium Chloride	. 0.006
Ferrous Sulfate	. 0.006
Manganese Sulfate	0.006
Agar	. 12.0
Final pH = $6.1 + 0.2$ at $25^{\circ}$ C	

# **DIRECTIONS**

Suspend 62.16 G of powder in 750 mL of distilled or deionized water. Heat until completely dissolved. Add 250 ml of commercial beer, not degassed, and mix well. Sterilize in autoclave at 121°C for 10 minutes. Dispense in final containers.

#### DESCRIPTION

Beer Universal Agar is a basal medium to which beer alone or beer with cycloheximide is added for the detection and culture of microbial contaminants in beer. The addition of cycloheximide at 0.001 G/L to suppress yeast growth gives a medium that is selective for the detection of bacterial contaminants in yeast cultures.

# **TECHNIQUE**

The sample to examine is inoculated, diluited if it is the case, over the surface of well dry plates. Alternatively pour 1 mL of the sample (or of its tenfold dilutions) into a plate, add 15-20 mL of molten medium cooled to 45-50°C and swirl the plate gently to mix well. Allow to solidify before incubating at 30  $\pm$  2°C for up to 3 days.

#### QUALITY CONTROL

**Dehydrated medium** 

Appearance: free-flowing, homogeneous.

Color: medium beige. Prepared medium

Appearance: very slightly opalescent.

Color: medium to dark amber.

Incubation conditions: 30  $\pm 2^{\circ}$ C / up to 3 days.

Microorganism	ATCC	Growth
Lactobacillus fermentum	9338	good
Saccharomyces cerevisiae	9763	inhibited*

<sup>\*</sup>when cycloheximide is added to the medium.



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#### STORAGE

The powder is very hygroscopic: store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared medium at 2-6°C.

# **REFERENCES**

- 1. Kozulis, J.A., and H.E. Page. (1968). Proc. Am. Soc. Brew. Chem. p. 52-58.
- 2. Murphy, D.T., and L.T. Saletan. (1970) . Tech. Q. Master Brew. Assoc. Am. 7: 182-187.

### **PACKAGING**

Cat. No : MB-B1126 Beer Universal Agar	500 G
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