

# **Technical Data**

# Polysorbate 80 Agar

**M1307** 

Polysorbate 80 Agar is used for the cultivation of variety of microorganisms.

#### Composition\*\*

Ingredients	Gms / Litre
Part A	-
Peptic digest of animal tissue	10.000
Agar	15.000
Part B	-
Polysorbate 80	10.000
Final pH ( at 25°C)	7.2±0.2

<sup>\*\*</sup>Formula adjusted, standardized to suit performance parameters

#### **Directions**

Suspend 25 grams of Part A in 990 ml distilled water. Heat to boiling to dissolve the medium completely. Add 10 ml of Part B. Mix well and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

# **Principle And Interpretation**

Polysorbate 80 Agar is recommended for the cultivation of variety of microorganisms (1). It is a nutritional medium containing neutralizing agent. This medium thus helps in neutralizing phenolic disinfectants, hexachlorophene and formalin present in the medium thereby increasing the metabolic rate of the organisms.

The medium contains peptic digest of animal tissue, which provide the necessary nutrients for the growth of the organisms. Polysorbate 80 provides fatty acids for the metabolism of the organisms and neutralizes phenolic disinfectants, hexachlorophene and formalin (2).

#### **Quality Control**

# Appearance

Part A: Cream to yellow homogeneous free flowing powder Part B: Colourless clear viscous liquid

#### Gelling

Firm, comparable with 1.5% Agar gel

#### Colour and Clarity of prepared medium

Yellow coloured clear gel forms in Petri plates

#### Reaction

Reaction of the medium (2.5% w/v part A + 1.0% w/v part B) at 25°C. pH :  $7.2\pm0.2$ 

## pН

7.00-7.40

#### **Cultural Response**

M1307: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Recovery
<b>Cultural Response</b>			
Escherichia coli ATCC	50-100	good-luxuriant	>=70%
25922			
Bacillus subtilis ATCC 6633	50-100	good-luxuriant	>=70%
Staphylococcus aureus	50-100	good-luxuriant	>=70%
ATCC 25923			
Candida albicans ATCC	50-100	good-luxuriant	>=70%
10231			

#### **Storage and Shelf Life**

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Store below 30°C in tightly closed container and prepared media at 2 8°C. Use before expiry date on label.

## Reference

1. Atlas R. M., 1997, ln: Handbook of Microbiological Media, 2nd Edition, Lawrence C Parks (Ed.), CRC Press, London. 2. Favero M.S., (chm.) 1967, Microbiological sampling of surfaces, Biological Contamination Control Committee, American Asso. For Contamination Control.

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