

# **Technical Data**

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# MacConkey Broth Double Strength with Neutral Red. 100 g / 500 g

Used for primary isolation coliform in food and water samples.

#### **Product Presentation:**

Cat No.	Product description	Pack Size
11130060100	MacConkey Broth Double Strength with Neutral Red.	100 Gram
11130060500	MacConkey Broth Double Strength with Neutral Red.	500 Gram

### **Principle**

MacConkey Broth Double Strength with Neutral Red is modification of the original bile salt broth recommended by MacConkey, which contained 0.5% sodium taurocholate and litmus as the indicator. In later publications, MacConkey suggested variations of this formula using neutral red as the indicator instead of litmus. The above-mentioned MacConkey Broth is recommended for direct plating and inoculation of water samples for coliform counts. Peptone provides amino acids and other growth factors. Lactose is a carbon and energy source. Bile salts inhibit the growth of Gram-positive organisms. Neutral red is the pH indicator. Sodium chloride maintains the osmotic balance.

#### Composition

Ingredients	Grams / Litre
Peptone	40.00
Lactose	20.00
Bile Salts	10.00
Sodium Chloride	10.00
Neutral Red	0.140

Final pH (at 25°C) 7.5±0.2

### Type of specimen

Food and water samples.

### **Specimen Collection and Handling**

Ensure that all samples are properly labeled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

### **Directions**

- ✓ Suspend 80.00 g of powder in 1000 mL distilled water.
- ✓ Mix thoroughly.
- ✓ Boil to dissolve the medium completely. Avoid Overheating.
- Dispense into tubes containing inverted Durham's tubes.
- ✓ Sterilize by autoclaving 121°C for 15 minutes or as per validated cycle.

# Storage and Stability

- ✓ Store Dehydrated culture media in cool, dry place at 10°C-30°C away from direct light.
- ✓ Store prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

### **FACTORY & OFFICE**

Plot No. D 76, Five Star MIDC Area, Kagal. Dist. Kolhapur -416216 (M.S.)India. Email: oxalispytltd@outlook.com

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



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## **Quality Control**

Dehydrated Appearance: Light yellow to pink coloured homogeneous, free flowing powder

Prepared Appearance: Red coloured, clear solution.

Growth Promotion Test: Growth promotion is carried out in accordance with the harmonized method of

USP/EP/JP and growth is observed after an incubation at 30°C-35°C for 18-24 hours.

Growth Promoting Properties: The test results observed are within the specified temperature and shortest period of

time specified in the test, inoculating ≤100 cfu of appropriate microorganism at 30°C-35°C for 18 hours.

**Inhibitory Properties:** No growth of the test microorganism occurs for the specified temperature and not less than the longest period of the time specified, inoculating >100 cfu of the appropriate microorganism at 30°C-35°C for 24 hours.

**Cultural Response:** 

Organism	Type Culture	Growth	Acid	Gas
Escherichia coli	ATCC 25922	Good	+	+
Salmonella enterica subsp. enterica serovar Typhimurium	ATCC 14028	Good	-	-
Klebsiella aerogenes	ATCC 13048	Good	+	+

## **Inhibitory**:

Organism	Type Culture	Growth	Acid	Gas
Staphylococcus aureus	ATCC 25923	Inhibited	=	-

### Key:

For Acid (+) - Positive, pink with precipitation or yellow colouration

For Acid (-) - Negative, no colour change

For Gas (+) - Positive reaction (Bubble formation in Durham's tube)

For gas (-) - Negative reaction (No bubble formation in Durham's tube)

**Note:** For inhibition no growth of test microorganism should occur.

# **Warranty**

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

#### Disposal

Disposal of infectious material and material that comes in to contact with clinical sample must be decontaminated and dispose of by autoclaving or incineration or established laboratory procedures.

User must be ensure safe disposal of used or unusable preparation of the products.

#### Reference

- 1. IP. 1996, Ministry of Health and Family Welfare, Govt. of India, Vol.2.
- 2. US Pharmacopeial Convention, Inc. 2001, The United States Pharmacopoeia 25/NF 20-2002. The US Pharmacopeial Convention, Inc; Rockville, Md.

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