

# **Technical Information**

### **Bile Salt Agar**

Product Code: DM 1739

Application: - Bile Salt Agar is used for isolation and enumeration of bile tolerant enteric bacilli.

### Composition\*\*

Ingredients	Gms / Litre
Peptic digest of animal tissue	10.000
Meat extract	5.000
Sodium chloride	5.000
Sodium taurocholate	5.000
Agar	18.000
Final pH ( at 25°C)	8.2±0.2

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

parameters

## **Principle & Interpretation**

Enteric bacilli include a variety of gram-negative bacilli, mainly inhabitant of the intestine as normal commensals or pathogens. Mostly they are the members of Enterobacteriaceae family but members of other taxonomical groups (e.g. Vibrionaceae) are also considered in this category. These organisms can cause either intestinal or extra-intestinal infections (1). Bile Salt Agar is used for isolation and enumeration of enteric bacilli.

The medium contains peptic digest of animal tissue and meat extract which provide nitrogenous compounds and other essential nutrients for the growth of enteric bacilli. Sodium taurocholate inhibits contaminating gram-positive organisms. Sodium chloride maintains the osmotic balance of the medium.

### Methodology

Suspend 43 grams of powder media in 1000 ml distilled water. Shake well & heat to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates

## **Quality Control**

#### **Physical Appearance**

Cream to yellow homogeneous free flowing powder

#### Gelling

Firm, comparable with 1.8% Agar gel

#### Colour and Clarity of prepared medium

Light amber coloured, clear to slightly opalescent gel forms in Petri plates.

#### Reaction

Reaction of 4.3% w/v aqueous solution at 25°C. pH: 8.2±0.2

pH Range 8.00-8.40

#### Cultural Response/Characteristics

DM 1739: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.





Organism	Inoculum (CFU)	Growth	Recovery
Enterobacter aerogenes ATCC 13048	50-100	luxuriant	>=50%
Escherichia coli ATCC 25922	50-100	luxuriant	>=50%
Staphylococcus aureus ATCC 25923	>=103	inhibited	0%
Salmonella Typhi ATCC 6539	50-100	luxuriant	>=50%
Viibrio cholerae ATCC 15748	50-100	luxuriant	>=50%

### Storage and Shelf Life

**Dried media:** Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-80 in sealable plastic bags for 2-5 days.

## **Further Reading**

1. Corry J. E. L., Curtis G. D. W., and Baird R. M., Culture Media for Food Microbiology, Vol. 34, Progress in Industrial Microbiology, 1995, Elsevier, Amsterdam

### Disclaimer:

- User must ensure suitability of the product(s) in their application prior to use.
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