

## Technical Information

### Crystal Violet Lactose Broth

**Product Code: DM 1831**

**Application:** - Cooke Rose Bengal Agar is used for selective cultivation and isolation of fungi.

#### Composition\*\*

Ingredients	Gms / Litre
Peptic digest of animal tissue	5.000
Lactose	5.000
Dipotassium phosphate	5.000
Monopotassium phosphate	1.000
Crystal violet	0.00143
Final pH ( at 25°C)	7.4±0.2

\*\*Formula adjusted, standardized to suit performance parameters

#### Principle & Interpretation

The extent to which total coliforms are present in the source water indicates the general quality of that water and the likelihood that the water is faecally contaminated or not. The presence of total coliforms above the standard indicates inefficacy in treatment or in the distribution system of drinking water. Environmental Protection Agency (EPA) requires all public water systems to monitor for total coliforms in distribution systems at regular intervals. If coliforms are found, then the public water system must further analyze coliform positive sample for specific types of coliforms (i.e., faecal coliforms or *E. coli*). EPA is increasing protection to surface water systems from pathogens as part of the Interim Enhanced Surface Water Treatment Rule. Crystal Violet Lactose Broth is used for the detection of coliforms in such water filtration control works.

The media contains proteose peptone, beef extract and peptic digest of animal tissue as sources of carbon, nitrogen, vitamins and minerals. Dipotassium and mono potassium phosphates provide buffering to the medium. Lactose is the carbon and energy source. Crystal violet inhibits most of the gram positive organisms.

#### Methodology

Suspend 16 grams of powder media in 1000 ml distilled water. Shake well & distribute in 10 ml quantities in tubes with inverted Durhams tubes. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. If the inoculum is more than 1 ml double or multiple strength media must be used as per requirement.

#### Quality Control

##### Physical Appearance

Light yellow to light tan homogeneous free flowing powder

##### Colour and Clarity of prepared medium

Purple coloured, clear solution in tubes

##### Reaction

Reaction of 1.6% w/v aqueous solutions at 25°C. pH : 7.4±0.2

**pH Range:** 7.2-7.6

##### Cultural Response/ characteristics

DM 1831: Cultural characteristics observed after an incubation at 35-37°C for 40-48 hours.



Dehydrated Culture Media  
Bases / Media Supplements

Organism	Inoculum (CFU)	Growth	Recovery	Colour of colony
<i>Escherichia coli</i> ATCC 25922	50-100	luxuriant	>=50%	purple
<i>Staphylococcus aureus</i> ATCC 25923	50-100	fair-good	30-40%	light yellow
<i>Staphylococcus epidermidis</i> ATCC 12228	50-100	fair-good	30-40%	purple/ very slightly yellow
<i>Streptococcus pyogenes</i> ATCC 19615	>=10 <sup>3</sup>	inhibited	0%	
<i>Escherichia coli</i> ATCC 25922	50-100	luxuriant	>=50%	purple

## 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:** 2-8° in sealable plastic bags for 2-5 days.

## Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate
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