# Technical Information

## Anaerobic Agar without Dextrose and Eh Indicator

## Product Code: DM 1229

**Application: -** Anaerobic Agar without Dextrose and Eh Indicator is recommended for the isolation and identification of anaerobic pathogens including to study the haemolytic activity of Clostridia, Streptococci and other anaerobic organisms.

## Composition**

| Ingredients | Gms / Litre |
|---|---|
| Casein enzymic hydrolysate | 20.000 |
| Sodium chloride | 5.000 |
| Sodium thioglycollate | 2.000 |
| Sodium formaldehyde sulphoxylate | 1.000 |
| Agar | 15.000 |
| Final pH ( at 25°C) | 7.2±0.2 |

**Formula adjusted, standardized to suit performance parameters

## Principle & Interpretation

Anaerobic Agar without dextrose and methylene blue (Eh indicator) is used for studies of haemolytic activity of Clostridia, Streptococci and other anaerobes [(1)]. For isolation or cultivation of the highly fermentative butyric types, 1% dextrose may be added prior to sterilization. These media contain sodium thioglycollate and sodium formaldehyde sulphoxylate which provides adequate anaerobiosis. Casein enzymic hydrolysate provides essential nutrients while sodium chloride maintains osmotic equilibrium. For haemolytic tests anaerobic blood agar plates may be prepared in one of the following ways;

1) Sterile blood in about 0.7 ml amount and small inoculum may be mixed with 25-50 ml of cooled agar and mixture is poured into the Petri plate filling it up to 3/4. After solidification the lid is replaced with Brewer Anaerobic Petri plate cover,

2) An ordinary sterile Blood Agar plate (made from Blood Agar Base or Tryptone Soya Agar) may be streaked with a culture. Melted and cooled Anaerobic Agar without Dextrose is then poured over the Blood Agar to provide the proper depth. After solidification the lid is replaced with anaerobic Petri plate cover.

The anaerobic cover should not rest on the Petri plate bottom: its inner ridge should seal the agar, and the medium within the ridge should not touch the cover at any point. The medium should be cherry red in colour after addition of blood.

## Methodology

Suspend 43 grams of powder media in 1000 ml distilled water. Shake well & heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (12 1°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 1.5% Agar gel

**Colour and Clarity of prepared medium**
Yellow to 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 : 7.2±0.2

**pH Range:-** 7.00-7.40

**Cultural Response/Characteristics**

DM 1229: Cultural characteristics observed under anaerobic condition after an incubation at 35-37°C for 18-48 hours.

| Organism | Inoculum (CFU) | Growth | Recovery |
|---|---|---|---|
| *Clostridium butyricum ATCC 13732* | 50-100 | good-luxuriant | >=50% |
| *Clostridium perfringens ATCC 12919* | 50-100 | good-luxuriant | >=50% |
| *Clostridium sporogenes ATCC 11437* | 50-100 | good-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:** 2-8$^0$ in sealable plastic bags for 2-5 days.

## Further Reading

1. Vera J., 1942, J. Bact., 44:497

## 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 a at **CDH** is true and accurate
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