# Technical Information

## Saline Meat Yeast Agar

## Product Code: DM 2777

**Application: -** Saline Meat Yeast Agar is used as an identification media for *Vibrio parahaemolyticus* from food products or animal feeding products.

## Composition**

| Ingredients | Gms / Litre |
|---|---|
| Peptone | 10.000 |
| Meat extract | 2.000 |
| Yeast Extract | 6.000 |
| Sodium chloride | 30.000 |
| Cysteine hydrochloride | 0.300 |
| Glucose | 2.000 |
| Agar | 8.000 |
| pH after sterilzation ( at 25°C) | 7.50 |

**Formula adjusted, standardized to suit performance parameters

## Principle & Interpretation

Saline Meat Yeast Agar is in accordance with ISO 8914: 1990 (1) recommended for detection of *Vibrio parahaemolyticus* present in food samples.

*Vibrio parahaemolyticus* is a halophilic estuarine organism. This organism can be isolated from a variety of sea food product and marine environments. The organism, when isolated from fresh sea food, is usually found in low number and is sensitive to refrigeration and heat.

Peptone, Meat extract and yeast extract supply nitrogenous compounds, trace elements and vitamin B complex required for growth of *Vibrio*. High concentration of sodium chloride and alkaline pH of the medium supplies condition that facilitates easy recovery of *V. parahemolyticus* and restrict the growth of other contaminating bacteria. Glucose act as fermentable sugar. Cysteine hydrochloride helps to maintain reduced atmosphere in the medium.

Inoculate a well defined isolated colony from Saline Nutrient Agar (DM 2776) to molten regenerated and cooled (45$^0$C) Saline Meat Yeast Agar (DM2777) throughout its depth without introducing air bubbles. Immediately immerse the tubes in cold water to solidify the medium. Incubate at 35-37$^0$C for 24hrs and examine the growth. *Vibrio parahemolyticus* exhibits both aerobic and anaerobic growth with no gas production.

## Methodology

Suspend 58.30 grams of dehydrated powder media in 1000 ml distilled water. Mix thoroughly & heat to boiling to dissolve the medium completely. Shake well and dispense in quantities of 4ml into test tubes (9mm x 180mm). Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Note:** Just before use, heat the test tubes on a boiling water-bath or in flowing steam for 10 min, and then cool rapidly to about 45$^0$C.

## Quality Control

**Appearance**

Cream to yellow homogeneous free flowing powder.

**Colour and Clarity**

Light yellow coloured clear to slightly opalescent gel forms in the tubes.

**Reaction**

Reaction of 5.83% w/v aqueous solution after sterilization at 25°C. pH : 7.50

**pH Range**

7.50

**Cultural Response**

DM2777: Cultural characteristics observed after an incubation at 35-37°C for 24 hours.

| Organism | Inoculum (CFU) | Growth |
|---|---|---|
| *Vibrio parahaemolyticus ATCC 17802* | 50-100 | good-luxuriant |

## Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.
**Prepared Media**: 2-8° in sealable plastic bags for 2-5 days.

## Further Reading

1. International Organization for Standardization (ISO), 8914:1990.

## 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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