

Technical Information

Salmonella Selective Enrichment Broth Base

Product Code: DM 2843

Application: - Salmonella Selective Enrichment Broth Base is used for selective enrichment of *Salmonella* species.

Composition**

| Ingredients | Gms / Litre |
|---------------------|-------------|
| Peptone | 5.000 |
| Yeast extract | 5.000 |
| Buffer mixture | 10.000 |
| Growth mixture | 5.000 |
| Final pH (at 25°C) | 7.0±0.2 |

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Salmonella Selective Enrichment Broth Base is used for the selective enrichment of *Salmonella* species within 18-24 hours.

Salmonella are ubiquitous in the environment. These organisms are usually present in small numbers compared to coliforms; therefore it is necessary to examine a relatively large sample to isolate the organisms (1). *Salmonella* present in food samples may be sublethally damaged during various stages of food processing where they may be exposed to low temperatures, heat drying, radiations, various chemicals (2). These damaged cells are able to cause spoilage, and if ingested cause diseases under favourable conditions. Therefore it is important to resuscitate these damaged bacteria before enumeration.

Methodology

Suspend 25 grams of dehydrated powder media in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add the rehydrated contents of one vial of Salmonella Selective Enrichment Supplement (MS 2275). Shake well and dispense as desired.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Colour and clarity

Light yellow coloured clear solution without any precipitate

Reaction

Reaction of 2.5% w/v aqueous solution 25°C. pH : 7.0±0.2

Cultural Response

DM 2843: Cultural characteristics observed with added Salmonella Selective Enrichment Supplement (MS 2275) after an incubation at 35-37°C for 18-24 hours.

| Organism | Inoculum (CFU) | Growth |
|--|-------------------|----------------|
| <i>Salmonella Typhimurium ATCC 14028</i> | 50 -100 | good-luxuriant |



Dehydrated Culture Media
Bases / Media Supplements

| | | |
|--|-------------|----------------|
| <i>Salmonella Enteritidis</i> ATCC 13076 | 50 -100 | good-luxuriant |
| <i>Salmonella Abony</i> NCTC 6017 | 50 -100 | good-luxuriant |
| <i>Staphylococcus aureus</i> ATCC 25923 | $\geq 10^3$ | inhibited |

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. Cherry et al, 1972, Appl. Microbiol., 24:334
2. Hartman and Minich, 1981, J. Food and Prot., 44:385

Disclaimer :

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