



Synthetic Sea Salt

M1344

Synthetic Sea Salt is recommended for preparation of special diluents.

Composition**

Ingredients	Gms / Litre
Calcium chloride, 2H ₂ O	0.836
Potassium chloride	0.435
Strontium chloride, 6H ₂ O	0.0007
Sodium bicarbonate	0.1515
Magnesium sulphate, 7H ₂ O	3.800
Magnesium chloride, 6H ₂ O	2.940
Borax	0.030
Sodium chloride	14.900
Final pH (at 25°C)	7.5±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 19.38 grams (the equivalent weight of dehydrated medium per litre) in 1000ml distilled water. Heat, if necessary, to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and dispense as desired.

Principle And Interpretation

The coliform group consists of several genera of bacteria belonging to the family *Enterobacteriaceae* (1). Coliforms can be detected by performing the multiple tube test so as to obtain the most probable number (MPN). Synthetic Sea Salt, recommended by ISO Committee (2) is used to prepare special diluents. It is used as a diluent during detection and enumeration of *Escherichia coli* and coliforms in surface and wastewater. Sodium chloride in the medium helps to maintain osmotic balance and the other ingredients provide buffering action.

Quality Control

Appearance

White to cream homogeneous free flowing powder

Colour and Clarity of prepared medium

Colourless clear solution without any precipitate

Reaction

Reaction of 1.93% w/v aqueous solution at 25°C. pH : 7.5±0.2

pH

7.30-7.70

Cultural Response

M1344: Satisfactory results are obtained when used as a diluent during detection and enumeration of *E.coli* and coliform bacteria in surface and wastewater.

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Reference

1. Eaton A. D., Clesceri L. S. and Greenberg A. E., (Ed.), 1998, Standard Methods for the Examination of water and Wastewater, 20th Ed., American Public Health Association, Washington, D.C.
2. International Organization for Standardization (ISO), 1995, Draft ISO/DIS 9308-3: 1998 (E) Pg No. 14.

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