

## TM 1097-SYNTHETIC SEA SALT (ISO 9308-3:1998)

### INTENDED USE

For preparation of special diluents.

### PRODUCT SUMMARY AND EXPLANATION

Synthetic sea salt medium is recommended by the ISO committee for preparing special diluents. It is used as a diluent during detection and enumeration of *Escherichia coli* and coliforms in surface and wastewater. It can be used for performing most probable number technique.

### COMPOSITION

Ingredients	Gms / Ltr
Sodium chloride	14.900
Magnesium sulphate, 7H <sub>2</sub> O	3.800
Magnesium chloride, 6H <sub>2</sub> O	2.940
Sodium bicarbonate	0.1515
Calcium chloride, 2H <sub>2</sub> O	0.836
Potassium chloride	0.435
Borax	0.030
Strontium chloride, 6H <sub>2</sub> O	0.0007

### PRINCIPLE

The medium consists of Sodium chloride which helps in maintaining osmotic balance. The other ingredients provide buffering action.

### INSTRUCTION FOR USE

- Dissolve 19.38 grams (the equivalent weight of dehydrated medium per litre) in 1000ml distilled water.
- Gently heat to boiling with swirling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi (121°C) for 15 minutes
- Cool to 50°C.
- Mix well and dispense as desired.

### QUALITY CONTROL SPECIFICATIONS

Appearance of Dehydrated powder	:	White to cream, homogeneous free flowing powder
Appearance of Prepared medium	:	Colourless, clear solution
pH (at 25°C)	:	7.5± 0.2

### INTERPRETATION

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



## PACKAGING

In 500 gm packaging size.

## STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

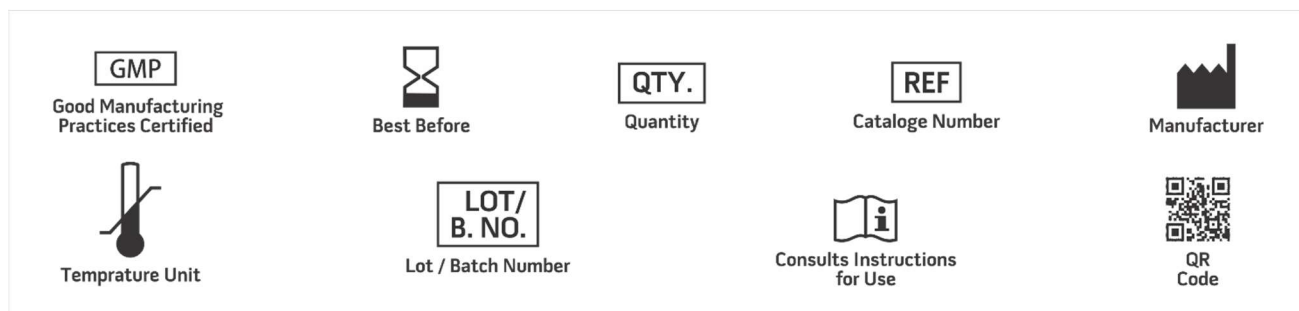
**Product Deterioration:** Do not use, If powder show evidence of microbial contamination, discoloration, drying, or other signs of deterioration.

## DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

## REFERENCES

1. ISO International Standardisation Organisation. Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of Clostridium perfringens - Colony-count technique. EN ISO 7932:2004.
2. ISO International Standardisation Organisation. Water quality -- Enumeration of Clostridium perfringens - Method using membrane filtration. ISO 14189:2013
3. Harmon S. M., Kauttar D.A. and Peiler J. T., 1971, Appl. Microbiol., 22:688.
4. Harmon S. M. and Kautter D.A., 1987, J. Asso. Off. Anal. Chem., 70: 994.
5. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., American Public Health Association, Washington, D.C.
6. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
7. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.



**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
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