Artificial Sea Water

Intended Use
Artificial Sea Water is a medium used for cultivation of marine organisms.

Summary & Principle
Artificial sea water is primarily used in marine biology and allows the easy preparation of media appropriate for marine organisms. Marine artificial media are used when critical studies cannot be conducted using a natural seawater base, so artificial seawater medium is used to minimize or exclude known contaminants for the purpose of studying trace elements. The Artificial sea water recipe consists of mineral salts, some anhydrous salts that can be weighed out, and some hydrous salts that should be added to the artificial seawater as a solution. There are many formulas, each with its own characteristics. The quality of a brand of sea salt is dependent on the formula, the quality of the raw materials and the uniformity of the blending. The salinity is the sum of all of the dissolved ions. All the salts present in the medium provides organic source of growth nutrients. *Vibrio* and *Halobacteriumie* are commom survivals,under conditions of hyper osmolarity.

Formula*

Ingredients	**g/L**
Sodium Chloride	24.6
Potassium Chloride	0.67
Calcium Chloride, $2H_2O$	1.36
Magnesium Sulphate, $7H_2O$	6.29
Magnesium Chloride, $6H_2O$	4.66
Sodium Bicarbonate	0.18
Final pH (at 25°C)	8.0 ± 0.2

*Adjusted to suit performance parameters

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

Type of specimen
Marine water samples

Specimen Collection and Handling
Ensure that all samples are properly labelled.
Follow appropriate techniques for handling samples as per established guidelines.
Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration.
After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 31.73 g of the powder in 1000 mL purified / distilled water.
2. If desired filter through whatmann filter paper.
3. Dispense as desired and sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.

Quality Control

Dehydrated Appearance: White coloured homogeneous free flowing powder.

Prepared Appearance: Colourless clear solution without any precipitate.

Cultural Response: Cultural characteristics observed after an incubation of 18-24 hours at 30°C-35°C.

Organisms (ATCC)	Growth
Halobacterium salinarium (33171)	Good

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

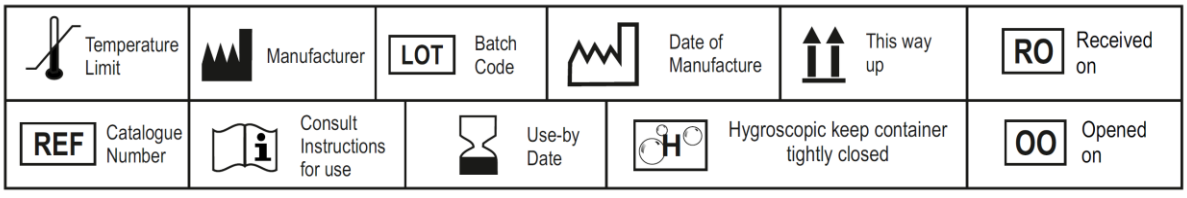
This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
2. 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.
3. Kester, D. R., Duedall, I. W., Connors, D. N. and Pytkowicz, R. M. (1967). Preparation of Artificial Seawater. Limnology & Oceanography 12, 176—179.
4. Thomas Frakes, Technical Consultant, Aquarium Systems, Inc.
5. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201010900500	Dehydrated Culture Media	500 g



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Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.