

TM 1083 - SEA WATER AGAR (DOUBLE PACK)

INTENDED USE

For cultivation of marine microorganism.

PRODUCT SUMMARY AND EXPLANATION

Marine life represents a vast resource, providing food, medicine, and raw materials. It is also a source of halophilic bacteria. These bacteria contribute to the spoilage of marine fish and shellfish. Halophilic bacteria have complex ionic requirements and may require Mg⁺⁺ and K⁺ in addition to sodium chloride for growth and proteolytic activity. Sea Water Agar is formulated as recommended by APHA for cultivation of marine microorganisms from sea foods.

COMPOSITION

Ingredients	Gms / Ltr
Part I	
Yeast extract	5.000
Peptic digest of animal tissue	5.000
Beef extract	3.000
Agar	15.000
Part II	
Sodium chloride	24.000
Potassium chloride	0.700
Magnesium chloride, 6H ₂ O	5.300
Magnesium sulphate, 7H ₂ O	7.000
Calcium chloride	0.100

PRINCIPLE

Yeast extract, beef extract and peptic digest of animal tissue provide nitrogenous compounds, vitamin B complex and other essential growth nutrients. Part II composition acts as synthetic sea water to create conducive growth atmosphere.

INSTRUCTION FOR USE

- Dissolve 37.1 grams (the equivalent weight of dehydrated medium) of Part II in 1000 ml distilled water.
- Heat if necessary to dissolve completely.
- This will be sea water (Synthetic), add 28 grams of Part I medium.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Part I: Cream to yellow homogeneous free flowing powder Part II: White to cream homogeneous free flowing powder.
Appearance of prepared medium	: Yellow coloured slightly opalescent gel forms in Petri plates.
pH (at 25°C)	: 7.5±0.2



INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Vibrio cholerae</i>	15748	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours
<i>Vibrio parahaemolyticus</i>	11344	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°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.

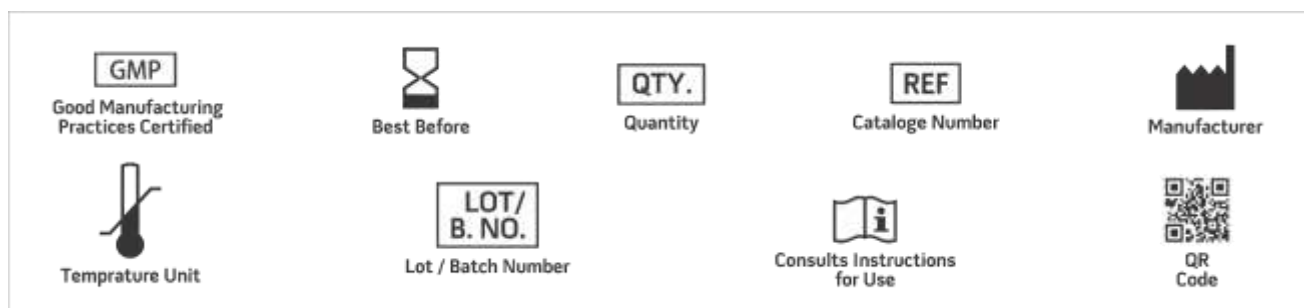
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

- Liston J., Matches J. R., and Baross J., 1971, Fish Inspection and Quality Control, Ed., R. Krevger, P. 246 Fishing News (Books) Limited, London, England
- MacLeod R. A., Onofrey E. and Norris M. E., 1954, J. Bacteriol., 68: 6803.
- Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.



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

*For Lab Use Only
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