TM 1872 - HALOPHILIC BROTH

INTENDED USE
For isolation and cultivation of halophilic bacteria.

PRODUCT SUMMARY AND EXPLANATION
Halophilic media are formulated for isolation and cultivation of extreme halophilic species of *Halobacterium* and *Halococcus* from foods. For optimum growth they require high salt concentration of about 20-30%. In general, the requirement for salt by halophilic microorganisms is not an exclusive need for NaCl since many species require low levels of K +, Mg++ and other ions in addition to NaCl. The level of salt required by microorganism varies greatly. Therefore, the microbial types associated with a particular salted food depend on the concentration and type of salt and food. The most recent classifications of halophilic microorganisms are based on the level of salt required. These bacteria can cause pink discoloration on the outer surface accompanied by putrefaction and decomposition of fish, bacon and hides preserved in sea salts.

COMPOSITION

Ingredients	Gms / Ltr
Casein acid hydrolysate	10.000
Yeast extract	10.000
Proteose peptone	5.000
Trisodium citrate	3.000
Potassium chloride	2.000
Magnesium sulphate	25.000
Sodium chloride	250.000

PRINCIPLE
Halophilic Broth contains Casein acid hydrolysate; proteose peptone and yeast extract which provide all the necessary nutrients, mainly nitrogenous and vitamins to the halophilic bacteria. Trisodium citrate is added to avoid the losses. Magnesium sulphate, sodium chloride and potassium chloride are essential ions required for the growth of extreme halophiles.

INSTRUCTION FOR USE
- Dissolve 30.5 grams in 100 ml distilled water.
- Heat if necessary to dissolve the medium completely.
- Dispense in tubes or flasks as desired and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS
Appearance of Powder : Off-white to yellow homogeneous free flowing powder.
Appearance of prepared medium : Amber coloured, slightly hazy solution with heavy precipitate at the bottom in tubes.
pH (at 25°C) : 7.2±0.2

INTERPRETATION
Cultural characteristics observed after an incubation.

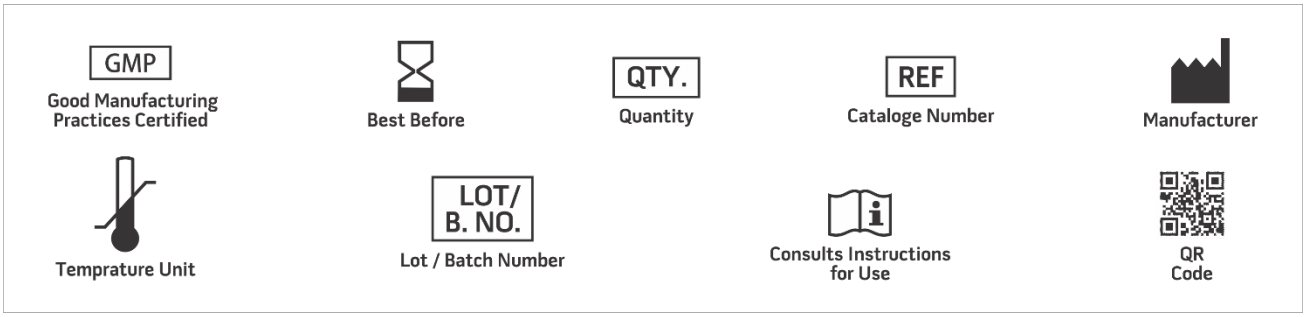
Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Halobacterium salinarium	33171	50-100	Luxuriant	35 - 37°C	12 days
Halococcus morrhuae	17082	50-100	Luxuriant	35 - 37°C	12 days

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
1. Dundas I.E., 1977, Advances in Microbiology and Physiology, Rose H. and Tempest D.W. (Eds.), A.P. London.
2. Gibbons N.E., 1969, Methods in Microbiology, Vol. 3B, Norris J.R., and Ribbons D.W. (Eds.), A.P., New York, pp.169-183.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition
4. 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.
5. Kushner D. J., (Eds.), 1978, D. J. Kushner, pg 317, Academic Press, London, England
6. MacLeod R. A., 1965, Bacteriol., Rev., 29:9



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.
***For Lab Use Only**
Revision: 08 Nov., 2019