



**Halophilic Agar**

**TM 1871**

For isolation and cultivation of halophilic bacteria.

**COMPOSITION**

Ingredients	Gms/Ltr
Sodium chloride	250.000
Agar	20.000
Magnesium sulphate	25.000
Casein acid hydrolysate	10.000
Yeast extract	10.000
Proteose peptone	5.000
Trisodium citrate	3.000
Potassium chloride	2.000

\*\*Formula adjusted, standardized to suit performance parameters

**INSTRUCTIONS FOR USE**

Dissolve 32.5 grams in 100 ml distilled water. Gently heat to boiling with gentle swirling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and pour into sterile Petri plates.

**Appearance of the medium:** Amber colour, slightly opalescent gel w/ precipitate.

**pH (at 25°C) :** 7.2 ± 0.2

**PRINCIPLE**

Halophiles are salt loving organisms that flourish in saline environments and can be classified as slightly, moderately or extremely halophilic, depending on their requirement for sodium chloride. Although most marine organisms are slight halophiles, moderate and extreme halophiles are generally more specialized microbes, which inhabit hypersaline environments with salinity higher than in the sea.

Halophilic Agar media are formulated for isolation and cultivation of extreme halophilic species of *Halobacterium* and *Halococcus* from foods .They require high salt concentration of about 20-30% for optimum growth. In general, the requirement for salt by halophilic microorganisms is not an exclusive need for NaCl since many species require low level of K +, Mg++ and other ions in addition to NaCl. These bacteria can cause pink discoloration on the outer surface accompanied by putrefaction and decomposition of fish, bacon and hides preserved in sea salts.

Halophilic agar contains casein acid hydrolysate, proteose peptone and yeast extract which provide all the necessary nutrients, mainly nitrogenous and vitamins to the halophilic bacteria.



## PRODUCT DATA SHEET

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.

### INTERPRETATION

Cultural characteristics observed after incubation at  $35 \pm 2.0^{\circ}\text{C}$  for 12 days.

Organism	ATCC	Inoculum (CFU)	Growth
<i>Halobacterium salinarium</i>	33171	50-100	Luxuriant
<i>Halococcus morrhuae</i>	17082	50-100	Luxuriant

### Reference

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