

# **Product Data Sheet**

HALOPHILIC BROTH
Product No. GB-DCM-00247-1A

### **INTENDED USE**

For isolation and cultivation of halophilic bacteria.

## PRODUCT SUMMARY

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.

## **Product Specifications**

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):  $7.2 \pm 0.2$ 

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

#### **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.

This product is for research use only.