TM 2394 – TRYPTONE SOYA SALT AGAR W/ MAGNESIUM SULPHATE

INTENDED USE

For enumeration of *Vibrio parahaemolyticus* from seafood by membrane filter technique.

PRODUCT SUMMARY AND EXPLANATION

Vibrio's are fairly easy to isolate from both clinical and environmental materials, though some species may require growth factors and /or vitamins. *Vibrio parahaemolyticus* is the leading cause of bacterial diarrhoea associated with the consumption of contaminated food products. Media can be made selective for *Vibrios* by adding appropriate selective agents. High concentrations of sodium chloride have been used to select certain *Vibrio* species, based on the ability of most *Vibrio's* to grow at 3% or higher concentrations of NaCl. Tryptone Soya Salt Agar with Magnesium Sulphate (TSAMS) is recommended by APHA for enumerating *V.parahaemolyticus* from seafood by membrane filter technique.
The medium is used after the seafood sample is diluted (1:10) with sterile Peptone Tween Salt Diluent (PTS), blended for 60 secs at high speed and filtered through Hydrophobic Grid Membrane Filter (HGMF). With forceps, aseptically transfer the HGMF from the filtration apparatus to the surface of a dry Tryptone Soya Salt Agar with Magnesium Sulphate and incubate. Following incubation for 4 hours at 35°C, HGMF is aseptically transferred from TSAMS to the surface of dry Vibrio Parahaemolyticus Sucrose Agar. Following incubation, *V.parahaemolyticus* colonies on VPSA will be blue- green coloured since they are sucrose non-fermenters, and other growth will be yellow. Count green-blue colonies and calculate the MPN per gram of seafood.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	50.000
Papaic digest of soyabean meal	5.000
Sodium chloride	30.000
Magnesium sulphate	1.500
Agar	15.000

PRINCIPLE

Casein enzymic hydrolysate and papaic digest of soyabean meal provide the nitrogenous compounds and other growth factors for the growth of *V.parahaemolyticus*. The medium contains high salt concentration to meet requirement of Vibrio species from seafood.

INSTRUCTION FOR USE

- Suspend 101.50 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Yellow coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.3±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

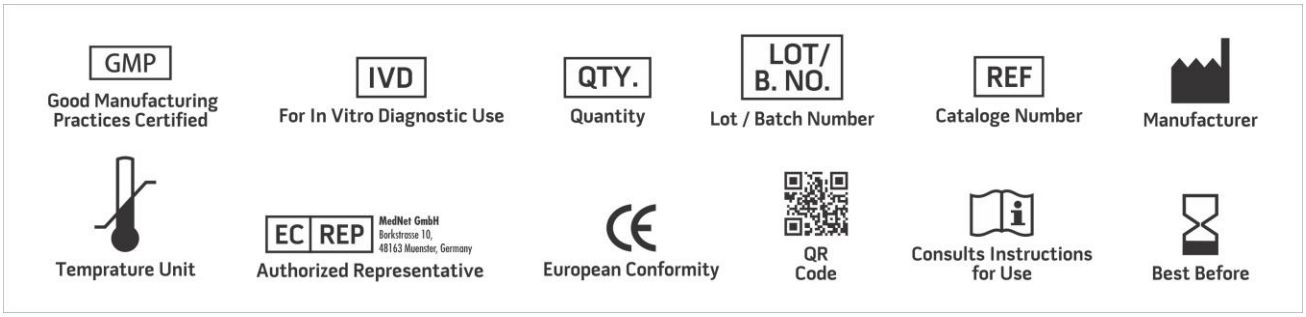
Microorganism	ATCC	Inoculum (CFU)	Growth	Recovery	Incubation Temperature	Incubation Period
Vibrio alginolyticus	17749	50-100	Good-luxuriant	>=50%	42°C	18-24 Hours
Vibrio parahaemolyticus	17802	50-100	Good-luxuriant	>=50%	42°C	18-24 Hours
Vibrio vulnificus	29306	50-100	Good-luxuriant	>=50%	42°C	18-24 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
1. Bruno Gomez-Gil and Ana Roque, Isolation, Enumeration and Preservation of the Vibrionaceae. F. L. Thompson, B. Austin and J. Swings. The Biology of Vibrios. ASM press.
2. Vanderzant C. and Splittstoesser D. F., (Eds.), 1992, Compendium of Methods for the Microbiological Examination of Foods, 3rd Ed., APHA, Washington, D.C.
3. Entis P. and Boleszczuk P., 1983, J. Food Prot., 46:783.



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