PRODUCT DATA SHEET

ALKALINE SALINE PEPTONE WATER TM 1878

For enrichment of *Vibrio* species from food and water samples in accordance with ISO.

Composition

Ingredients	Gms/Ltr
Peptone	20.000
Sodium Chloride	20.000

**Formula adjusted, standardized to suit performance parameters

Instructions For Use

Dissolve 40 grams in 1000 ml distilled water. Gently heat to boiling with gentle swirling and dissolve the medium completely. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes Dispense as desired.

Appearance of the medium: Light yellow coloured clear solution
pH (at 25°C): 8.6±0.2

Principle

Vibrio is a genus of Gram negative bacteria facultative anaerobes that test positive for oxidase and do not form spores. *Vibrio* species is mainly responsible for causing cholera and food poisoning in humans. *Vibrio cholera* causes cholerae due to the intake of contaminated food. *Vibrio parahaemolyticus* is a major cause of food borne infections, causing food poisoning. Since *Vibrio* species naturally occur in sea water, there is a need for sodium chloride, although some species can grow with minimum sodium chloride concentration. The widely used media for *Vibrio* isolation are TCBS Agar and Alkaline Peptone Water.

Alkaline Saline Peptone Water (ASPW) was first formulated by Shread, Donovan and Lee to be used as a non-selective enrichment broth for the cultivation of *Aeromonas* species.

Alkaline Saline Peptone Water (ASPW) is in accordance with ISO/TS 21872-1:2007 which specifies a horizontal method for the detection of the two main pathogenic *Vibrio* species causing intestinal illness in humans: *V. parahaemolyticus and V. cholera*. It is applicable to products intended for human consumption and the feeding of animals, and environmental samples in the area of food production and food handling.

Peptone provides amino acids and nitrogen for growth requirements, whereas sodium chloride provides essential electrolytes for maintenance of the osmotic balance. Peptone Water uses elevated pH and salt levels to provide a favorable environment for enrichment of *Vibrio* spa and also has an inhibitory action on the accompanying microflora.

Interpretation

Cultural characteristics observed after inoculating (10^3CFU/ml), on incubation at 35-37°C for 18-24 hours

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth
Vibrio cholerae	15748	10^3	Luxuriant
Vibrio parahaemolyticus	17802	10^3	Luxuriant

References

1. Madiga et al, 2005.Biology of Microorganisms, 11th ed, Prentice Hall.

2. Thompson et al (ed.). 2006. The Biology of Vibrios, ASM Press, chapter 1, pg 3.

3. Alcamo. E.I, 2001. Fundamentals of Microbiology, 6th ed, Jones and Bartlett Publishers, Inc. pg 254, 244.

4. Clesceri, Greenberg and Eaton (ed.). 1998. Standard Method for the examination of Water and Waste water, 20th ed. American Public Health Association, Washington, D. C.

5. ISO/TS 21872-1:2007. Horizontal method for the detection of the two main pathogenic *Vibrio* species causing intestinal illness in humans: *V. parahaemolyticus* and *V. cholera*.

6. Shread P., Donovan T. J., and Lee J. V. (1991) Soc. Gen. Microbiol. Q. 8:184