TRYPTONE WATER

INTENDED USE

Remel Tryptone Water is a liquid medium recommended for use in qualitative procedures for detection of *Escherichia coli* in food and water samples based on indole production.

SUMMARY AND EXPLANATION

Coliforms are considered indicators of fecal contamination in water and wastewater.¹ In dairy foods, a test for coliforms serves to measure the quality of the practices used to ensure proper processing and minimize bacterial contamination of processed dairy products.² Tryptone Water is recommended by the American Public Health Association to confirm the presence of *E. coli* in a sample following a presumptive test for total coliform. One of the following methods may be used, MPN (most probable number) or membrane filtration.

PRINCIPLE

Casein peptone supplies the amino acid tryptophan which is the substrate used for the detection of indole. Sodium chloride is a source of essential electrolytes and maintains osmotic equilibrium. Coliform organisms breakdown tryptophan with the help of enzymes that mediate the production of indole by hydrolytic activity. Indole which has split from the tryptophan molecule can be detected using either Ehrlich's or Kovacs' reagent.

REAGENTS (CLASSICAL FORMULA)*

Casein Peptone......10.0 g

pH 7.3 ± 0.2 @ 25°C

*Adjusted as required to meet performance standards.

PRECAUTIONS

This product is For Laboratory Use only. It is not intended for use in the diagnosis of disease or other conditions.

PREPARATION OF DEHYDRATED CULTURE MEDIUM

- 1. Suspend 15 g of medium in 1000 ml of demineralized water.
- 2. Heat with agitation to completely dissolve.
- 3. Sterilize by autoclaving at 121°C for 15 minutes.
- 4. Dispense into appropriate containers.

PROCEDURE

1. Consult current editions of appropriate references for the recommended procedure for sample preparation, inoculation, testing, and interpretation.

QUALITY CONTROL

Each lot number of Tryptone Water has been manufactured, packaged, and processed in accordance with current Good Manufacturing Practice regulations. All lot numbers have been tested using the following quality control organisms and have been found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, sample results should not be reported.

CONTROL	INCUBATION	RESULTS
Escherichia coli ATCC [®] 25922	Ambient, 18-24 h @ 33-37°C	Growth, Indole (+)
Enterobacter aerogenes ATCC [®] 13048	Ambient, 18-24 h @ 33-37°C	Growth, Indole (-)
Enterobacter cloacae ATCC [®] 13047	Ambient, 18-24 h @ 33-37°C	Growth, Indole (-)

BIBLIOGRAPHY

- 1. Eaton, A.D., L.S. Clesceri, E.W. Rice, and A.E. Greenberg. 2005. Standard Methods for the Examination of Water & Wastewater. 21st ed. APHA, Washington, D.C.
- 2. Wehr, H.M. and J.F. Frank. 2004. Standard Methods for the Examination of Dairy Products. 17th ed. APHA, Washington, D.C.
- 3. MacFaddin, J.F. 2000. Biochemical Tests for Identification of Medical Bacteria. 3rd ed. Lippincott Williams & Wilkins, Philadelphia, PA.
- 4. MacFaddin, J.F. 1985. Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria. Vol. 1. Williams & Wilkins, Baltimore, MD.

Refer to the front of Remel *Technical Manual of Microbiological Media* for **General Information** regarding precautions, product storage and deterioration, sample collection, storage and transportation, materials required, quality control, and limitations.

 $\mathsf{ATCC}^{\circledast}$ is a registered trademark of American Type Culture Collection. IFU 455121, Revised March 1, 2012

Printed in U.S.A.

