

## 93657 Tryptone Medium (Tryptone Water)

Tryptone Water is used for the detection of indole production by coliforms.

### Composition:

Ingredients	Grams/Litre
Tryptone	10.0
Sodium chloride	8.0
Final pH 6.9 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C. Use before expiry date on the label.

Appearance: Faintly yellow to beige, homogeneous, free flowing powder.  
 Gelling: Firm  
 Color and Clarity: Slightly yellow to brown, clear solution

### Directions:

Dissolve 18 g in 1 litre distilled water and autoclave at 121°C for 15 minutes.

### Principle and Interpretation:

APHA (1) and the ISO Committee (2) recommend Tryptone Medium for detection of indole production by coliforms, which is a key feature of differentiation. Tryptone (= tryptic digested casein) is a good substrate for indole production due to its high tryptophan content. Sodium chloride is added to provide osmotic balance of the medium. Certain organisms are able to split the proteinogenic amino-acid tryptophan into indol and  $\alpha$ -aminopropionic acid (3). Indol can be detected by Kovac's reagent (60983, 67309) or Ehrlich's reagent (39070, 39080) forming a red coloured complex that concentrates in a top alcohol layer (4).

Cultural characteristics after 24 hours at 37°C.

Organisms (ATCC)	Growth	Indol reaction
<i>Escherichia coli</i> (25922)	+++	+
<i>Enterobacter aerogenes</i> (13048)	+++	-

### References:

- Greenberg A.E., Clescery L.S. and Eaton A.D. (Eds.) 1992, Standard Methods for the Examination of Water and Wastewater, 18<sup>th</sup> ed. APHA, Washington, D.C.
- International Organization for Standardisation (ISO), 1993, Draft ISO/DIS 9308-1
- MacFaddin, 1980, Biochemical Tests for Identification of medical Bacteria, second ed., Williams and Wilkins, Baltimore.
- Finegold and Baron, 1986, Bailey and Scott's Diagnostic Microbiology, 7<sup>th</sup> ed., The C.V. Mosby Co., St. Luis

### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

