

## TMV 512 – TRYPTONE PHOSPHATE BROTH (VEG.)

### INTENDED USE

For cultivation of enteropathogenic *Escherichia coli* from foods.

### PRODUCT SUMMARY AND EXPLANATION

In this media the animal based peptone Casein enzymic hydrolysate is replaced by vegetable peptone Veg hydrolysate which is free from BSE/TSE risks. Certain biotypes of *Escherichia coli* are etiological agents of gastrointestinal illness in humans and several mammals. These enteric diseases are characterized by fever, vomiting and prominent and watery diarrhea, usually with mucus but not blood. Enteropathogenic *E. coli* serotypes have been shown to be important causes of infantile diarrhoea. Tryptone Phosphate Broth is formulated as recommended by APHA for the enrichment of Enteropathogenic *E. coli*.

For isolating pathogenic *Escherichia coli* from foods, aseptically add 25gm of sample to 225 ml of Brain Heart infusion Broth Veg and pre-enrich for 3 hours at 35°C. Transfer the entire pre-enrichment broth to 250 ml of Tryptone Phosphate Veg Broth. To ascertain the productivity of this medium incubate at 44°C for 20 hours. For isolation and identification streak from the Tryptone Phosphate Veg Broth onto EMB Veg Agar or MacConkey Veg Agar.

### COMPOSITION

Ingredients	Gms / Ltr
Veg hydrolysate	20.000
Dipotassium phosphate	2.000
Monopotassium phosphate	2.000
Sodium chloride	5.000
Polysorbate 80	1.500

### PRINCIPLE

Tryptone Phosphate Veg Broth, is the modification of Tryptone Phosphate Broth which is formulated as recommended by APHA for the enrichment of enteropathogenic *Escherichia coli*. Veg hydrolysate serves as a good source of nitrogen. Polysorbate 80 is the fatty acid source required for bacterial metabolism. The inorganic phosphates serve as the buffer while sodium chloride maintains the osmotic balance.

### INSTRUCTION FOR USE

- Dissolve 30.5 grams in 1000 ml distilled water.
- Heat if necessary to dissolve the medium completely.
- Dispense into tubes and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

### QUALITY CONTROL SPECIFICATIONS

**Appearance of Powder** : Light yellow coloured, may have a slightly greenish tinge, homogeneous, free flowing powder.

**Appearance of prepared medium** : Yellow coloured, clear solution without any precipitate.

**pH (at 25°C)** : 7.0 ± 0.2

### INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU)	Growth	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	Good-luxuriant	35-37°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. Downes FP and Ito K (Eds.), 2001, Compendium of Methods For The Microbiological Examination of Foods, 4th ed., APHA, Washington, D.C.



**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
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