# TMV 318 – THIOGLYCOLLATE MEDIUM, FLUID (FLUID THIOGLYCOLLATE MEDIUM) (as per USP) (VEG.)

## INTENDED USE

For sterility testing of biologicals and for cultivation of aerobes, anaerobes and microaerophiles.

## PRODUCT SUMMARY AND EXPLANATION

Fluid Thioglycollate Veg Media are specially developed from Veg hydrolysate and Veg extract to avoid BSE/ TSE risks associated with animal origin peptone. Brewer formulated Fluid Thioglycollate Medium for rapid cultivation of aerobes as well as anaerobes including microaerophiles by adding a reducing agent and small amount of agar. The USP, BP, EP and AOAC have recommended the media for sterility testing of antibiotics, biologicals and foods and for determining the phenol coefficient and sporicidal effect of disinfectants. However, it is intended for the examination of clear liquid or water-soluble materials. Fluid Thioglycollate Medium is also routinely used to check the sterility of stored blood in blood banks

## COMPOSITION

| Ingredients | Gms / Ltr |
|---|---|
| **Veg Hydrolysate** | 15.000 |
| **Yeast extract** | 5.000 |
| **Dextrose (Glucose)** | 5.500 |
| **Sodium chloride** | 2.500 |
| **L-Cystine** | 0.500 |
| **Sodium thioglycollate** | 0.500 |
| **Resazurin sodium** | 0.001 |
| **Agar** | 0.750 |

## PRINCIPLE

Dextrose, Veg hydrolysate, Veg extract, yeast extract, L-Cystine provide the growth factors necessary for bacterial multiplication. Sodium thioglycollate act as a reducing agent and neutralizes the antibacterial effect of mercurial preservatives and other heavy metal compounds which exert a bacteriostatic effect on the materials under examination. L-Cystine is a reducing agent, since it contain sulfhydryl group, which inactivate heavy metal compounds and maintain low redox potential, thereby supporting anarobics.

## INSTRUCTION FOR USE

- Suspend 29.75 grams of thioglycollate medium or in 1000 ml distilled water.
- Heat to boiling the medium completely. Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 25°C and store in a cool dark place preferably below 25°C.

Note: If Note: more than the upper one-third of the medium has acquired a pink colour, the medium may be restored once by heating in a water bath or in free flowing steam until the pink colour disappears.

## QUALITY CONTROL SPECIFICATIONS

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

**Appearance of prepared medium** : Light straw coloured, clear to very slightly opalescent solution with upper 10% or less medium pink on standing.

**pH (at 25°C)** : 7.1±0.2

## INTERPRETATION

Cultural characteristics observed after incubation.

| Microorganism | ATCC | Inoculum (CFU/ml) | Growth | Recovery | Incubation Temperature | Incubation Period |
|---|---|---|---|---|---|---|
| *Clostridium sporogenes* | 19404 | 50 -100 | Luxuriant | >70% | 30-35°C | Not more than 3 Days |
| *Clostridium sporogenes* | 11437 | 50 -100 | Luxuriant | >70% | 30-35°C | Not more than 3 Days |
| *Clostridium perfringens* | 13124 | 50 -100 | Luxuriant | >70% | 30-35°C | Not more than 3 Days |
| *Bacteroides fragilis* | 23745 | 50 -100 | Luxuriant | >70% | 30-35°C | Not more than 3 Days |
| *Bacteroides vulgatus* | 8482 | 50 -100 | Luxuriant | >70% | 30-35°C | Not more than 3 Days |
| *Staphylococcus aureus subsp. aureus* | 25923 | 50 -100 | Luxuriant | >70% | 30-35°C | Not more than 3 Days |
| *Staphylococcus aureus subsp. aureus* | 6538 | 50 -100 | Luxuriant | >70% | 30-35°C | Not more than 3 Days |
| *Pseudomonas aeruginosa* | 27853 | 50 -100 | Luxuriant | >70% | 30-35°C | Not more than 3 Days |
| *Pseudomonas aeruginosa* | 9027 | 50 -100 | Luxuriant | >70% | 30-35°C | Not more than 3 Days |
| *Streptococcus pneumoniae* | 6305 | 50 -100 | Luxuriant | >70% | 30-35°C | Not more than 3 Days |
| *Escherichia coli* | 8739 | 50 -100 | Luxuriant | >70% | 30-35°C | Not more than 3 Days |
| *Salmonella* Typhimurium | 14028 | 50 -100 | Luxuriant | >70% | 30-35°C | Not more than 3 Days |

| | | | | | | |
|---|---|---|---|---|---|---|
| *Bacillus subtilis subsp. spizizenii* | 6633 | 50 -100 | Luxuriant | >70% | 30-35°C | Not more than 3 Days |

**PACKAGING:**
In pack size of 100 gm and 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. Brewer, 1940, J. Am. Med. Assoc., 115:598.
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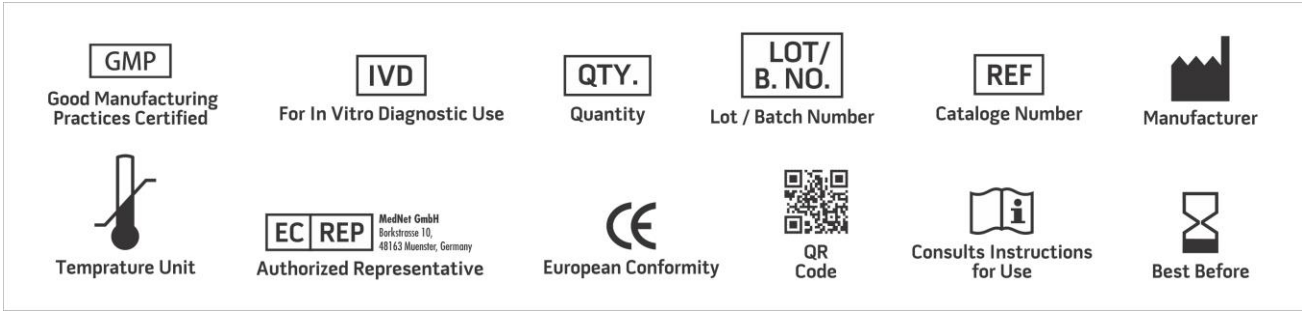
5. Portwood, 1944, J. Bact., 48:255.
6. MacFaddin J.F., 1985 (ed), Media for Isolation-Cultivation-Identification of Medical Bacteria. Vol 1. Williams and Wilkins, Baltimore.




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