

Sterile Fluid Thioglycollate Medium

AFTL004

Recommended for sterility testing of biologicals and for cultivation of anaerobes, aerobes and microaerophiles from pharmaceutical and clinical samples.

Composition	Ingredients Gms / Litre
Pancreatic digest of casein	15.000
Yeast extract	5.000
D (+) glucose mono hydrate	5.500
L- cystene	0.500
Sodium chloride	2.500
Sodium thioglycollate	0.500
Resazurin sodium	0.001
Agar Agar	0.750

Appearance:

Sterile Fluid Thioglycollate Medium in bottle with flip-off seal in bottle

pH (at 25°C):

6.90 to 7.30

Principle:

Fluid Thioglycollate Medium for rapid cultivation of aerobes as well as anaerobes including micro aerophiles by adding a reducing agent and small amount of agar. The USP, BP and EP 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. Dextrose, tryptone, yeast extract, L-cystine provide the growth factors necessary for bacterial multiplication. L-cystine and sodium thioglycollate allows Clostridium to grow in this medium even under aerobic conditions. Also the small amount of agar used in the medium favors the growth of aerobes as well as anaerobes in the medium, even if sodium thioglycollate is deleted from the medium. Sodium thioglycollate act as a reducing agent and neutralizes the toxic effects of mercurial preservatives and peroxides formed in the medium, thereby promoting anaerobiosis, and making the medium suitable to test materials containing heavy metals. Any increase in the oxygen content is indicated by a colour change of redox indicator, resazurin to red. The small amount of agar helps in maintaining low redox potential for stabilizing the medium.

Quantity of Medium

400 ml in 500 ml bottle with flip off seal

Cultural Response

Cultural characteristics observed after incubation at 30-35°C for 3 days and recovery should be greater than 70%.

Sterilization Method

Sterilized by autoclaving at 121 °C as per validated cycle

Sterility Test:

Passes release criteria.

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Shelf Life and Storage Conditions:

Use before expiry date on the label and store below 25°C.

Reference Pharmacopoeia:

USP/EP / BP / JP

Technical Data Sheet

Sterile Fluid Thioglycollate Medium

