

TM 2085 – FLUID THIOGLYCOLLATE MEDIUM W/0.5% SOYALECITHIN & 4% POLYSORBATE 20 (DOUBLE PACK)

INTENDED USE

this medium is used for sterility testing of biologicals and for cultivation of anaerobes, aerobes and microaerophilies.

PRODUCT SUMMARY AND EXPLANATION

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. This medium is a modification of Fluid thioglycollate medium with the addition of Soya lecithin and Polysorbate 20.

COMPOSITION

Ingredients	Gms / Ltr
Part I	
Tryptone	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
Soya lecithin	5.000
Agar	0.750
Part II	
Polysorbate 20	40.000

PRINCIPLE

This medium contains Dextrose, tryptone, yeast extract, L-cystine which 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. Soya lecithin neutralizes the quaternary ammonium compounds while polysorbate 20 neutralizes phenolic disinfectants, hexachlorophene and formalin.

INSTRUCTION FOR USE

- Dissolve 34.75 grams in 940 ml purified / distilled water containing 40 ml Part II.
 - Heat to boiling to dissolve 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 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	: Part I: Cream to yellow homogeneous free flowing powder Part II: Colourless viscous liquid.
Appearance of prepared medium	: Light straw coloured, clear to slightly opalescent solution with upper 10% or less medium pink -purple on standing, may develop a viscous layer at the bottom.
pH (at 25°C)	: 7.1 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Clostridium sporogenes</i>	19404	50-100	Luxuriant	30-35°C	≤3 Days
<i>Clostridium sporogenes</i>	11437	50-100	Luxuriant	30-35°C	≤3 Days
<i>Clostridium perfringens</i>	13124	50-100	Luxuriant	30-35°C	≤3 Days
<i>Bacteroides fragilis</i>	23745	50-100	Luxuriant	30-35°C	≤3 Days
<i>Bacteroides vulgatus</i>	8482	50-100	Luxuriant	30-35°C	≤3 Days
<i>Staphylococcus aureus subsp. aureus</i>	25923	50-100	Luxuriant	30-35°C	≤3 Days
<i>Staphylococcus aureus subsp. aureus</i>	6538	50-100	Luxuriant	30-35°C	≤3 Days

<i>Pseudomonas aeruginosa</i>	27853	50-100	Luxuriant	30-35°C	<=3 Days
<i>Pseudomonas aeruginosa</i>	9027	50-100	Luxuriant	30-35°C	<=3 Days
<i>Micrococcus luteus</i>	9341	50-100	Luxuriant	30-35°C	<=3 Days
<i>Streptococcus pneumoniae</i>	6305	50-100	Luxuriant	30-35°C	<=3 Days
<i>Escherichia coli</i>	8739	50-100	Luxuriant	30-35°C	<=3 Days
<i>Escherichia coli</i>	25922	50-100	Luxuriant	30-35°C	<=3 Days
<i>Salmonella</i> Typhimurium	14028	50-100	Luxuriant	30-35°C	<=3 Days
<i>Bacillus subtilis</i> subsp. spizizenii	6633	50-100	Luxuriant	30-35°C	<=3 Days

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

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

***For Lab Use Only**
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