

CM 22265 – FLUID THIOGLYCOLLATE MEDIUM (USP/EP/JP/BP/IP)

INTENDED USE

For sterility testing of biological and for cultivation of aerobes, anaerobes and microaerophilic organisms.

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.

COMPOSITION

Ingredients	Gms / Ltr
Pancreatic digest of casein	15.000
Dextrose	5.500
Yeast extract	5.000
Sodium chloride	2.500
Agar	0.750
L-Cystine	0.500
Sodium thioglycollate	0.500
Resazurin sodium	0.001

PRINCIPLE

Dextrose, Pancreatic digest of casein, yeast extract and 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.

INSTRUCTION FOR USE

Label the ready to use bottle. Inoculate the sample and incubate at specified temperature and time.

QUALITY CONTROL SPECIFICATIONS

Appearance of Prepared media	: Light straw coloured solution with upper 10% or less medium pink on standing.
Sterility test	: Passes the release criteria.
pH (at 25°C)	: 7.1±0.2

INTERPRETATION



Cultural characteristics observed after incubation. (*incubate anaerobically)

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
*Clostridium sporogenes	11437	50 – 100	Luxuriant	30-35°C	Not more than 3 days
*Clostridium perfringens	13124	50 – 100	Luxuriant	30-35°C	Not more than 3 days
*Clostridium sporogenes	19404	50 – 100	Luxuriant	30-35°C	Not more than 3 days
*Bacteroides fragilis	23745	50 - 100	Luxuriant	30-35°C	Not more than 3 days
Streptococcus pneumoniae	6305	50 – 100	Luxuriant	30-35°C	Not more than 3 days
Escherichia coli	25922	50 – 100	Luxuriant	30-35°C	Not more than 3 days
Escherichia coli	8739	50 – 100	Luxuriant	30-35°C	Not more than 3 days
Staphylococcus aureus	6538	50 – 100	Luxuriant	30-35°C	Not more than 3 days
Staphylococcus aureus	25923	50 – 100	Luxuriant	30-35°C	Not more than 3 days
Bacillus subtilis	6633	50 – 100	Luxuriant	30-35°C	Not more than 3 days
Pseudomonas aeruginosa	27853	50 – 100	Luxuriant	30-35°C	Not more than 3 days
Salmonella Typhimurium	14028	50 – 100	Luxuriant	30-35°C	Not more than 3 days

PACKAGING:

In pack size of 100 ml X 25 bottles.

STORAGE

On receipt, store bottles in the dark at 10–25 °C. Avoid freezing and overheating. Do not open until ready to use. Minimize exposure to light. Bottled media stored as labeled until just prior to use may be inoculated up to the



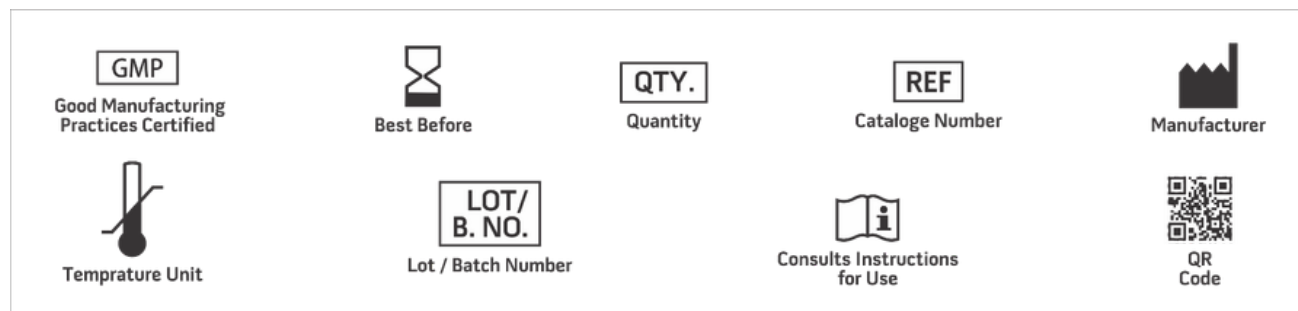
expiration date and incubated for the recommended incubation times. Allow the medium to warm to room temperature before inoculation

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.
2. The United States Pharmacopoeia, 2018, The United States Pharmacopoeial Convention, Rockville, MD.
3. British Pharmacopoeia, 2016, The Stationery office British Pharmacopoeia
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5. Williams H., (Ed.), 2005, Official Methods of Analysis of the Association of Official Analytical Chemists, 19th Ed., AOAC, Washington, D.C
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7. Nungester, Hood and Warren, 1943, Proc. Soc. Exp. Biol. Med., 52:287. 8. Portwood, 1944, J. Bact., 48:255.
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NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.
*For LabUse Only

