CM 20713 – FLUID THIOGLYCOLLATE MEDIUM (as per IP)

INTENDED USE

For sterility testing of biologicals and for cultivation of aerobic, anaerobic and microaerophilic organisms.

PRODUCT SUMMARY AND EXPLANATION

BrewerformulatedFluid ThioglycollateMediumfor rapid cultivation of aerobes as well as anaerobes by adding a reducing agent and small amount of agar. The Indian Pharmacopoeia 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
Tryptone	15.000
Yeast extract	5.000
Dextrose monohydrate	5.500
Sodium chloride	2.500
L-Cystine	0.500
Sodium thioglycollate	0.500
Resazurin sodium	0.001
Agar	0.750

PRINCIPLE

Themedium consists of Tryptone and yeast extract which provides nitrogenous and carbonaceous compounds, long chain amino acids, vitamins and other growth factors necessary for bacterial multiplication. Dextrose monohydrate is carbohydrate source. Sodium thioglycollate and L-cystine act as a reducing agent lowering the oxidation-reduction potential by removal of oxygen This condition helps to prevent the accumulation of peroxides which is toxic in nature. The SH group also neutralizes the antibacterial effect of mercurial preservatives and other heavy metal compounds which exert a bacteriostatic effect in the materials under examination. 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

Dissolve 29.75 gramsin 1000 ml distilled water.
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-purple colour, the medium may be restored once by heating in a water bath or in free flowing steam until the pink-purple colour disappears.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Light straw coloured, clear to slightly opalescent solution with upper 10% or less medium pink - purple on standing.
pH (at 25°C)	: 7.1 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Clostridium sporogenes	19404	50-100	Luxuriant	30-35°C	<=3 Days
Clostridium sporogenes	11437	50-100	Luxuriant	30-35°C	<=3 Days
Clostridium perfringens	13124	50-100	Luxuriant	30-35°C	<=3 Days
Bacteroides fragilis	23745	50-100	Luxuriant	30-35°C	<=3 Days
Bacteroides vulgatus	8482	50-100	Luxuriant	30-35°C	<=3 Days
Staphylococcus aureus subsp. aureus	25923	50-100	Luxuriant	30-35°C	<=3 Days
Staphylococcus aureus subsp. aureus	6538	50-100	Luxuriant	30-35°C	<=3 Days
Pseudomonas aeruginosa	27853	50-100	Luxuriant	30-35°C	<=3 Days
Pseudomonas aeruginosa	9027	50-100	Luxuriant	30-35°C	<=3 Days

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

PACKAGING:

Inpacksizeof100 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

Afteruse,prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

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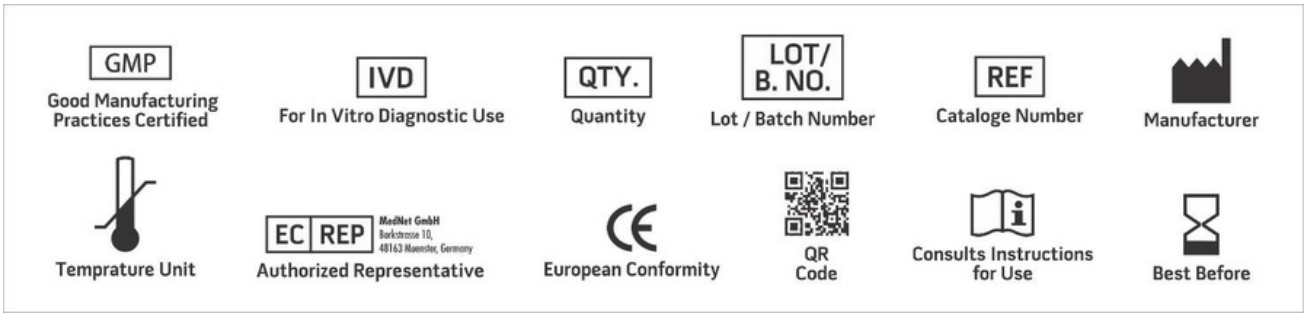

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

*For LabUse Only