

CM 21418 – PLATE COUNT AGAR (STANDARD PLATE AGAR) (VEG.)

INTENDED USE

For determination of plate counts of microorganisms in foods, water, waste water and from clinical samples.

PRODUCT SUMMARY AND EXPLANATION

This medium is prepared by replacing Casein enzymic hydrolysate with Veg hydrolysate which is free from BSE/ TSE risks. Plate Count Agar (Veg) medium is the modification of Plate Count Agar formulated as described by Buchbinder et al and which is also recommended by APHA.

COMPOSITION

Ingredients	Gms / Ltr
Veg hydrolysate	5.00
Yeast extract	2.50
Dextrose	1.00
Agar	15.00

PRINCIPLE

This medium consists of Veg hydrolysate which provides amino acids and other complex nitrogenous substances. Yeast extract supplies Vitamin B complex. The samples are diluted and appropriate dilutions are placed in petri plates. Sterile molten agar is added to these plates and plates are rotated gently to ensure uniform mixing of the sample with agar. Plate Count Veg Agar like the conventional medium is also suitable for finding out bacterial count from sterile rooms.

INSTRUCTION FOR USE

- Dissolve 23.5 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow coloured may have slightly greenish tinge, homogeneous, free flowing powder.
Appearance of prepared medium	: Light yellow coloured, clear to slightly opalescent gel forms in petri plates.
pH (at 25°C)	: 7.0 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
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Bacillus subtilis	6633	50-100	Luxuriant	$\geq 70\%$	35-37°C	18-24 Hours
Escherichia coli	25922	50-100	Luxuriant	$\geq 70\%$	35-37°C	18-24 Hours
Lactobacillus casei	9595	50-100	Luxuriant	$\geq 70\%$	35-37°C	18-24 Hours
Staphylococcus aureus	25923	50-100	Luxuriant	$\geq 70\%$	35-37°C	18-24 Hours
Enterococcus faecalis	29212	50-100	Luxuriant	$\geq 70\%$	35-37°C	18-24 Hours
Streptococcus pyogenes	19615	50-100	Luxuriant	$\geq 70\%$	35-37°C	18-24 Hours

PACKAGING:

Inpacksize 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. Buchbinder, Baris and Goldstein, 1951, Publ. Hlth. Rep., 66:327.
2. Standard Methods for the Examination of Dairy Products. 17th Edition, 2004 Edited by H. Michael Wehr and Joseph H. Frank.
3. Downes FP and Ito K (Eds.), 2001, Compendium of Methods For The Microbiological Examination of Foods, 4th ed., APHA, Washington, D.C.
4. Eaton A.D., Clesceri L.S. and Greenberg A.E., (Eds.), 2005, Standard Methods for the Examination of Water and Wastewater, 21st ed, APHA, Washington DC.

