

19718 Plate Count Agar, Vegitone (Vegitone Plate Count Agar)

Vegitone Plate Count Agar medium is recommended for the plate count of microorganisms in foods, water and waste water. In this medium the animal derived peptone is replaced by a plant peptone.

Composition:

Ingredients	Grams/Litre
Tryptone (vegetable)	5.0
Yeast extract	2.5
Dextrose	1.0
Agar	15.0
Final pH 7.0 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Appearance: Light yellow coloured, homogeneous, free flowing powder.
 Gelling: Firm.
 Colour and Clarity: Light yellow coloured, clear to slightly opalescent gel forms in petri plates.

Directions:

Suspend 23.5 g in 1000 ml distilled water. Boil to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle and Interpretation:

Plate Count Agar is formulated as described by Buchbinder et al (1) which is recommended by APHA (2, 3, 4) and FDA (5) and also by ISO Committee (6). Vegitone Plate Count Agar is formulated on the same formulation of Plate Count Agar except for the replacement of animal peptone by vegetable peptone making it free of BSE/TSE risks and serves the same purpose.

Tryptone (vegetable) provides amino acids and other complex nitrogenous substances. Yeast extract supplies Vitamin B complex. APHA recommends pour plate technique. 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 Agar Vegitone is also suitable for finding out bacterial count from sterile rooms.

Cultural characteristics after 18-24 hours at 35-37°C

Organisms (ATCC)	Growth
<i>Bacillus subtilis</i> (6633)	+++
<i>Escherichia coli</i> (25922)	+++
<i>Lactobacillus casei</i> (9595)	+++
<i>Staphylococcus aureus</i> (25923)	+++
<i>Enterococcus faecalis</i> (29212)	+++
<i>Staphylococcus pyogenes</i> (19615)	+++



References:

1. Buchbinder, Baris, Goldstein, Publ. Hlth. Rep., 66, 327 (1951)
2. R. Marshall (Ed.), Standard Methods for the Examination of Dairy Products 16th ed., APHA, Washington, D.C. (1992)
3. C. Vanderzant, D. Splittstoesser (Eds.), Compendium of Methods for the Microbiological Examination of Foods, 3rd ed., APHA, Washington, D.C. (1992)
4. A.E. Greenberg, L.S. Clesceri, A.D. Eaton (Eds.), Standard Methods for the Examination of Water and Waste Water, 18th ed., APHA, Washington, D.C. (1992)
5. U.S. Food and Drug Administration, Bacteriological Analytical Manual, 8th ed., AOAC, Arlington, Va. (1995)
6. International Organization for Standardization (ISO), Draft ISO/DIS 4833 (1991)

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

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