

TMV 363 – PLATE COUNT AGAR (STANDARD METHODS AGAR) (VEG.)

INTENDED USE

For determination of plate counts of microorganisms in milk & dairy products by pour plate method.

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 | 9.00 |

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 17.5 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) $: 7.0 \pm 0.2$

INTERPRETATION

Cultural characteristics observed after incubation.

| Microorganism | ATCC | Inoculum (CFU/ml) | Growth | Recovery | Incubation Temperature | Incubation Period | |
|---------------|------|----------------------|--------|----------|---------------------------|----------------------|--|
|---------------|------|----------------------|--------|----------|---------------------------|----------------------|--|









| Bacillus subtilis | 6633 | 50-100 | Luxuriant | >=70 % | 35-37°C | 18-24 Hours |
|--------------------------|-------|--------|-----------|--------|---------|-------------|
| Escherichia coli | 25922 | 50-100 | Luxuriant | >=70 % | 35-37°C | 18-24 Hours |
| Lactobacillus casei | 9595 | 50-100 | Luxuriant | >=70 % | 35-37°C | 18-24 Hours |
| Staphylococcus aureus | 25923 | 50-100 | Luxuriant | >=70 % | 35-37°C | 18-24 Hours |
| Enterococcus faecalis | 29212 | 50-100 | Luxuriant | >=70 % | 35-37°C | 18-24 Hours |
| Streptococcus pyogenes | 19615 | 50-100 | Luxuriant | >=70 % | 35-37°C | 18-24 Hours |

PACKAGING:

In pack size 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 Microbio logical 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.































NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. *For Lab Use Only

Revision: 08 Nov., 2019







