

CM 22560 - PLATE COUNT AGAR

INTENDED USE

For determination of plate counts of microorganisms in food, water and waste water.

PRODUCT SUMMARY AND EXPLANATION

Plate Count Agar is formulated as described by Buchbinder et al which is recommended by APHA and FDA. The poured plate count method is preferred to the surface inoculation method, since it gives higher results. Plate Count Agar is also suitable for enumerating bacterial count of sterile rooms.

COMPOSITION

| Ingredients | Gms / Ltr |
|---------------|-----------|
| Agar | 15.000 |
| Dextrose | 1.000 |
| Yeast extract | 2.500 |
| Tryptone | 5.000 |

PRINCIPLE

Tryptone provides nitrogenous and carbonaceous compounds, long chain amino acids, and other essential nutrients. Yeast extract supplies Vitamin B complex. APHA recommends the use of pour plate technique. The samples are diluted and appropriate dilutions are added 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.

INSTRUCTION FOR USE

Either streak, inoculate or surface spread the test inoculum aseptically on the plate.

QUALITY CONTROL SPECIFICATIONS

| | | |
|--------------------|---|--------------------------------|
| Appearance | : | Light yellow colored medium |
| Quantity of Medium | : | 25ml of medium in 90mm plates. |
| pH (at 25°C) | : | 7.0 ± 0.2 |
| Sterility Check | : | Passes release criteria |

INTERPRETATION

Cultural response was observed after incubation.

| Microorganism | ATCC | Inoculum (CFU/ml) | Growth | Recovery | Incubation Temperature | Incubation Period |
|--|-------|-------------------|-----------|----------|------------------------|-------------------|
| <i>Escherichia coli</i> | 25922 | 50-100 | Luxuriant | ≥70% | 35-37°C | 18-48 hours |
| <i>Bacillus subtilis subsp. spizizenii</i> | 6633 | 50-100 | Luxuriant | ≥70% | 35-37°C | 18-48 hours |
| <i>Enterococcus faecalis</i> | 29212 | 50-100 | Luxuriant | ≥70% | 35-37°C | 18-48 hours |
| <i>Staphylococcus aureus subsp. aureus</i> | 25923 | 50-100 | Luxuriant | ≥70% | 35-37°C | 18-48 hours |
| <i>Lactobacillus casei</i> | 9595 | 50-100 | Luxuriant | ≥70% | 35-37°C | 18-48 hours |



| | | | | | | |
|-------------------------------|-------|--------|-----------|-------|---------|-------------|
| <i>Streptococcus pyogenes</i> | 19615 | 50-100 | Luxuriant | >=70% | 35-37°C | 18-48 hours |
| <i>Pseudomonas aeruginosa</i> | 27853 | 50-100 | Luxuriant | >=70% | 35-37°C | 18-48 hours |

PACKAGING:

Doubledlayered packing containing 5 No. of plates with one silica gel desiccant bag packed inside it.

STORAGE

On receipt,store the plates at 15–30 °C. Avoid freezing and overheating. Do not open until ready to use. Prepared plates stored in their original sleeve wrapping until just prior to use may be inoculated up to the expiration date and incubated for recommended incubation times. Allow the medium to warm to room temperature before inoculation.

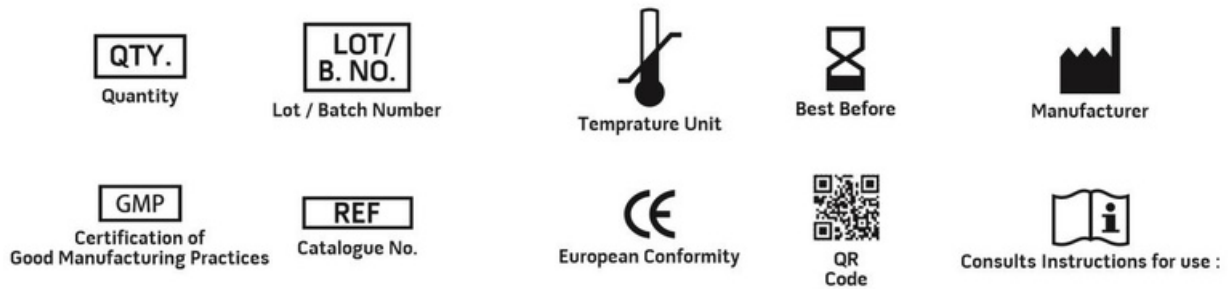
Product Deterioration: Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C
2. Buchbinder L., Baris Y., Alld E., Reynolds E., Dilon E., Pessin V., Pincas L. and Strauss A., 1951, Publ. Hlth. Rep., 66:327.
3. FDA Bacteriological Analytical Manual, 2005, 18th Ed., AOAC, Washington, DC.
4. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C
5. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.



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