



Plate Count Agar (A.P.H.A.)

(Standard Methods Agar, Tryptone Glucose Yeast Agar)

LAB 10

Description

Formulated to A.P.H.A. specifications, this medium is used for establishing total viable counts for aerobes in food, dairy and water bacteriology. The product uses agar of very high gel strength in order that it can be used in pour-plate as well as surface inoculation techniques. The product can be remelted prior to use although it should not be held for a prolonged period in the molten stage.

Typical Formula	g/litre
Tryptone	5.0
Yeast Extract	2.5
Glucose	1.0
Agar No. 1	15.0

Method for reconstitution

Weigh 23.5 grams of powder, disperse in 1 litre of deionised water. Bring to the boil with frequent stirring to dissolve. Dispense into tubes and sterilise by autoclaving at 121°C for 15 minutes. Cool to 44-46°C for not more than 3 hours prior to use. ROLL-TUBES. Add an additional 10g/litre Agar No. 1 prior to reconstitution of the medium.

Appearance: Pale straw coloured, clear gel.

pH: 7.0 ± 0.2

Minimum Q.C. organisms: *S. aureus* WDCM 00032
E. coli WDCM 00013

Storage of Prepared Medium: Plates – up to 7 days at 2-8°C in the dark. Capped containers – up to 3 months at 15-20°C in the dark.

Inoculation method: Pour plate technique or surface inoculation.

Incubation: 30°C aerobically for 48 hours for aerobic mesotroph count. 6°C aerobically for 10 days for aerobic psychrotroph count. 55°C aerobically for 48 hours for aerobic thermotroph count.

Interpretation: Count all colonies and calculate the number of organisms (or 'colony forming units' c.f.u.) per ml of sample allowing for dilution factors.

References

American Public Health Association (1972). Standard Methods for the Examination of Dairy Products. 13th edn. (ed. Hausler, W.J.) A.P.H.A., Washington.

American Public Health Association (1966). Recommended Methods for the Microbiological Examination of Foods, 2nd edn. (ed. Sharf, J.M.) A.P.H.A., Washington.

American Public Health Association (1976). Standard Methods for the Examination of Water and Waste Water, 14th edn. (ed. Franson, M.A.) A.P.H.A., Washington.