

TECHNICAL DATA SHEET

BACTERIOLOGICAL AGAR TYPE A

SOLIDIFICATION AGENT

1 INTENDED USE

Bacteriological agars act as solidification agents in the preparation of solid culture media at concentrations between 12 and 20 g / L.

2 DESCRIPTION

Agars are extracts of marine algae that has been purified and dried. The extraction in an acid solution is followed by successive purifications in order to obtain clear gels, devoid of precipitates after sterilization and exempt from inhibitory substances.

Agar is comprised essentially of agarose (70 %) and of agaropectin (30 %) which form together a solid gel after heating and cooling.

Agarose is a linear polysaccharide entirely comprised of D-galactose and of 3-6 anhydro-L-galactose linked at alpha 1-3 and beta 1-4.

Agaropectin, which the structure is similar to that of agarose, also contains groups of anionic esters linked to calcium and to magnesium as well as organic acids (glucuronic and pyruvic).

The 3-6 anhydro- α -L-galactoside link is very sensitive at low pH, so much so that it is necessary to avoid prolonged heating of acid media, which could lead to the depolymerization of the agar and consequently a loss of gel strength.

Bacteriological agar type A is an American type agar which presents a gel strength less than that of the type E European agar.

3 TYPICAL COMPOSITION

Physical characteristics :

- Aspect, powder color white cream
- Fusion temperature ≥ 85 °C
- Gelification temperature 35-30 °C
- Precipitation after sterilization negative
- pH at 1,5% gel after sterilization 6,5-7,0
- Gel strength at 1,5% after sterilization 650-700 g/cm²

Chemical characteristics :

- Foreign substances less than 1,0 %
- Starch absent
- Gelatin absent
- Sulfuric ash less than 6,0 %
- Heavy metals less than 0,004 %
- Lead less than 0,001 %
- Arsenic less than 0,0003 %
- Loss on drying less than 10,0 %

4 BACTERIOLOGICAL CONTROL

- Total aerobic mesophilic flora less than 5000 cfu/g

5 PACKAGING / SHELF LIFE

500 g bottle A1010HA
5 kg drum A1010GC

Store between 2 - 30 °C.
The expiration date is indicated on the label.

6 ADDITIONAL INFORMATION

The information provided on the labels take precedence over the formulations or instructions described in this document and are susceptible to modification at any time, without warning.

Document code : TDS AGAR AMERICAIN_EN_v8.
Creation date : 01-2003
Updated : 09-2015
Origin of revision : General update.