

Also known as

Agar-Agar

Specification

Gelling agent selected for solidifying the microbiological culture media.

Description

Agar is the dried, hydrophilic, colloidal substance extracted from algae known as Agarophytes (several species and genera of the Class *Rhodophyceae*). It consists of two polysaccharides, agarose and agaropectine, in a variable proportion depending on the geographical zone of origin.

Bacteriological Agar is a solidifying agent selected and prepared by mixing different agars from several geographical zones of origin. It is especially recommended for gelling microbiological culture media where excellent transparency and clarity is required.

Physico-chemical characteristics

The most important characteristics are:

Physical data

Appearance.....	Fine powder, free flowing
Color.....	Lig. beig- Beig
Melting point (1,5%).....	83-89 °C
Gelling point (1,5%).....	32-39 °C
Gel strength (<i>Nikan</i>).....	700 ± 50 g/cm ²
Dissolution time (at 100°C).....	1,00 min
Turbidity.....	< 7 NTU

Chemical data

pH of 1,5% solution at 25°C.....	5,7 - 7,0
Particle size.....	< 0,45 mm
Loss on drying.....	< 8,00 % (w/w)
Residue on ignition.....	< 6,50 % (w/w)
Acid insoluble ash.....	< 0,03 % (w/w)
Calcium.....	300-2500 ppm
Magnesium.....	50-1000 ppm

Microbiological limits

Total aerobic microbial count.....	< 1000 CFU/g
Heat resistant thermophiles.....	< 500 CFU/g
Heat resistant mesophiles.....	< 20 CFU/g
Coliforms.....	< 10 CFU/g
Moulds and yeasts.....	< 500 CFU/g
<i>Staphylococcus aureus</i>	absent in 10 g
<i>Escherichia coli</i>	absent in 10 g
<i>Salmonella spp</i>	absent in 25 g

Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4 °C to 30 °C).