

# Gelatin

Gelatin is used as substrate for the detection of gelatin degrading microorganisms and the microbial count in water

## Mode of Action

Microorganisms like Enterobacteriaceae, *Aerococcus*, Pseudomonadaceae, *Bacilli*, *Clostridium*, *Pediococcus*, and *Vibrio* spp which degrade gelatin cause liquefaction of gelatin causing a clear halo around the colony or inoculation streak.

## Preparation

As a gelling agent gelatin is used in the concentration of 15% (15g /100ml). Gelatin melts at a temperature of about 28 °C. Gelatin is heat sensitive. Gelatin culture media should be sterilised at 115°C for 10min.

## Typical Analysis

Colour powder	Light yellow to beige
Colour in solution	yellow-beige
Solubility	total
pH (1% in water)	5.0-6.0
Loss on drying (105 °C)	≤15%
Sulfated ash (800 °C)	≤2%
Sulfuroixde (SO <sub>2</sub> )	≤0.005%
Peroxide (as H <sub>2</sub> O <sub>2</sub> )	≤001%
Heavy toxic metals (as Pb)	≤0.001

## Literature

LEVINE, M. & CARPENTER, D.C. 1923 Gelatin liquefaction by bacteria. *Journal of Bacteriology* 8, 297-306

FISCHER, G.W. & KELTER, N. 1957 Zur Gelatineverflüssung bei 37°C und bei Zimmertemperatur. *Archives für Hygiene* 41, 368-372

## Ordering Information

Product	Merck Cat. No.	Pack size
Gelatin	1.04070.0500	500 g

## Quality control

Test strains	Growth
Staphylococcus aureus ATCC 25923	+
Staphylococcus aureus ATCC 6538P	+
Enterococcus faecalis ATCC 11700	+
Listeria monocytogenes ATCC 19113	+
Escherichia coli ATCC 8739	+
Klebsiella pneumoniae ATCC 13883	+
Salmonella typhimurium ATCC 14028	+