

## NUTRIENT GELATIN

For determination of gelatin liquefaction and for the 20°C plate count.

### Typical formula (g/l)

Beef Extract	3
Peptone	5
Gelatin	120

### DIRECTIONS

Suspend 128g in 1000ml of cold distilled water, leave for 10 minutes then bring to the boil to dissolve completely, distribute and sterilise by autoclaving at 121°C for 15 minutes.

Final pH 6.8 ± 0.2

### DESCRIPTION

Nutrient Gelatin is used for the enumeration of microorganisms in water specimens at an incubation temperature of 20°C, and to determine the ability of bacteria to liquefy gelatin.

Gelatin was one of the first solidifying agents in the preparation of culture media for microbiology. However, because of its low gel point (25°C), a temperature, which is definitely not optimal for microbial growth. It was later replaced with agar. The medium is now mainly used to determine the ability to liquefy gelatin, a standard method in taxonomic studies.

### TECHNIQUE

To perform a gelatin liquefaction test, inoculate a test tube of Nutrient Gelatin solidified at 4°C with a drop of heavy microbial suspension and incubate at 22-25°C for 24 hours to 14 days. Every 24 hours put the tubes at 2-8°C for 10 minutes and observe whether the gelatin is able to solidify the medium.

If the microorganisms being examined contain proteolytic enzymes which hydrolyse gelatin, the medium remains liquid.

For the standard plate count on water, recommended by APHA (1946), dilute the sample with sterile water and place 0.5 or 1ml of the dilutions in each dish of at least two duplicate sets of sterile Petri dishes. Cool the Nutrient Gelatin to around 42°C and aseptically add 10ml to each dish. Mix the medium with the inoculum, solidify as soon as possible after pouring, and immediately place in an incubator at 19-21°C. Incubate for 48 hours and count at least two plates made containing between 30 and 300 colonies.

### USER QUALITY ASSURANCE (48 h-20°C)

Productivity control

*S.aureus* ATCC 25923: growth, gelatin liquefaction

*E.coli* ATCC 25922: growth

### STORAGE

Dehydrated media: 10-30°C

User prepared tubes and flasks: 1 month at 2-8°C

### REFERENCES

- APHA (1946) Standard Methods for the Examination of Water and Sewage, 5<sup>th</sup> ed.

### PACKAGING

4018202      Nutrient Gelatin      500g (3.9 l)