TM 1059 - NUTRIENT GELATIN
(IS: 5887 (Part VII) 1999, reaffirmed 2005)

INTENDED USE
For detection of gelatin liquefaction by proteolytic microorganisms.

PRODUCT SUMMARY AND EXPLANATION
Nutrient gelatin is used for detecting the proteolytic microorganisms on the basis of gelatin liquefaction. This medium is prepared as per the formulations recommended by BIS. Gelatin liquefaction is one of the essential tests used for differentiating enteric bacilli.

COMPOSITION

Ingredients	Gms / Ltr
Gelatin	120.000
Sodium chloride	30.000
Peptic digest of animal tissue	5.000
Meat extract	3.000

PRINCIPLE
The medium contains Meat extract and peptic digest of animal tissue which supply nutrients for the growth of non-fastidious organisms. Organisms producing gelatinase liquify the gelatin. Sodium chloride maintains the osmotic balance. For testing gelatinase liquification, the strains are stab inoculated in Nutrient Gelatin. Many species require prolonged incubation for gelatin liquefaction. Gelatin is solid at 20°C or less temperature and liquid at 35°C or higher temperature. Gelatin liquefies at about 28°C, so incubation is carried out at 35°C but kept in a refrigerator for about 2 hours before interpretation of the results. Liquefaction of gelatin occurs on the surface layer, so care should be taken not to shake the tubes. Control is run along with every testing as gelling ability of gelatin varies and also the gelatin concentration should not exceed 12% as it may inhibit growth.

INSTRUCTION FOR USE
- Dissolve 158.00 grams in 1000 ml distilled water.
- Gently heat to 50°C and dissolve the medium completely.
- Dispense into tubes.
- Sterilize by autoclaving at 15 psi (121°C) for 12 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Dehydrated powder : Cream to yellow, homogeneous free flowing slightly coarse powder
Appearance of Prepared medium : Light amber colored, clear to slightly opalescent gel as butts
pH (at 25°C) : 7.0 ± 0.2

INTERPRETATION
Cultural characteristics observed after an incubation. Incubate anaerobically for *C. perfringens*.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Gelatinase production	Incubation Temperature	Incubation Period
Bacillus subtilis	6633	50-100	Luxuriant	Positive reaction	35-37°C	1-7days

Clostridium perfringens	12924	50-100	Luxuriant	Positive reaction	35-37°C	1-7days
Escherichia coli	25922	50-100	Luxuriant	Negative reaction	35-37°C	1-7days
Proteus vulgaris	13315	50-100	Luxuriant	Positive reaction	35-37°C	1-7days
Staphylococcus aureus	25923	50-100	Luxuriant	Positive reaction	35-37°C	1-7days

PACKAGING

In 500 gm packaging size.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use powder if they show evidence of microbial contamination, discoloration, drying, or other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Bureau of Indian Standards IS: 5887 (Part IV) 1976.
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4. Lautrop H., 1956, Acta Pathol. Microbiol. Scand., 39:357.
5. Frobisher M., 1957, Fundamentals of Microbiology, 6th ed., W.B. Saunders Co., Philadelphia, and P: 239.
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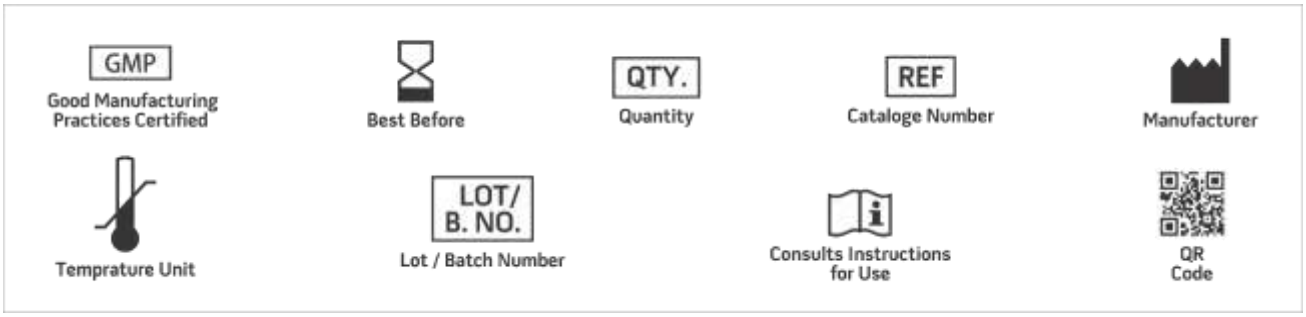

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

Revision: 05th Oct. 2019