TM 1058 – NUTRIENT AGAR (W/ MANGANESE)

INTENDED USE

For promoting sporulation in *Bacillus* species.

PRODUCT SUMMARY AND EXPLANATION

Nutrient Agar w/Manganese, conventionally abbreviated as NA w/Mn favours culture and sporulation of aerobic *Bacillus* species especially from canned foods.

COMPOSITION

Ingredients	Gms / Ltr
Gelatin Peptone	5.000
Beef extract	3.000
Agar	15.000
Manganese sulphate	0.030

PRINCIPLE

The medium consists of Beef extract and gelatin peptone which provide necessary nutrients required for growth of Bacillus species. Manganese is known to influence and enhance sporulation in Bacillus species. It has been reported that organisms recovered from spoilage of foods such as fruit drinks, tomatoes, acidified onions and other canned foods sporulate well aerobically on Nutrient Agar with added manganese.

INSTRUCTION FOR USE

- Dissolve 23.03 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow coloured homogeneous free flowing powder

Appearance of prepared medium : Light amber coloured clear to slightly opalescent gel forms in Petri plates.

pH (at 25°C) : 6.8 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period

Bacillus coagulans	8038	50-100	Luxuriant (with sporulation)	>=70%	35-37°C	Upto 5 Days
Bacillus licheniformis	9945a	50-100	Luxuriant (with sporulation)	>=70%	35-37°C	Upto 5 Days
Bacillus megaterium	9855	50-100	Luxuriant (with sporulation)	>=70%	35-37°C	Upto 5 Days
Bacillus polymyxa	8526	50-100	Luxuriant (with sporulation)	>=70%	35-37°C	Upto 5 Days
Bacillus stearothermophilus	7953	50-100	Luxuriant (incubated at 55°C for upto 5 days)	>=70%	35-37°C	Upto 5 Days

PACKAGING:
In pack size of 500 gm bottles.

STORAGE
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°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 if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

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

REFERENCES
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5. Maunder D. T., 1970, "Examination of canned foods for microbial spoilage." Microbiology, Metal Div. R. and D, Continental Can Co., Inc., Oak Brook, III.
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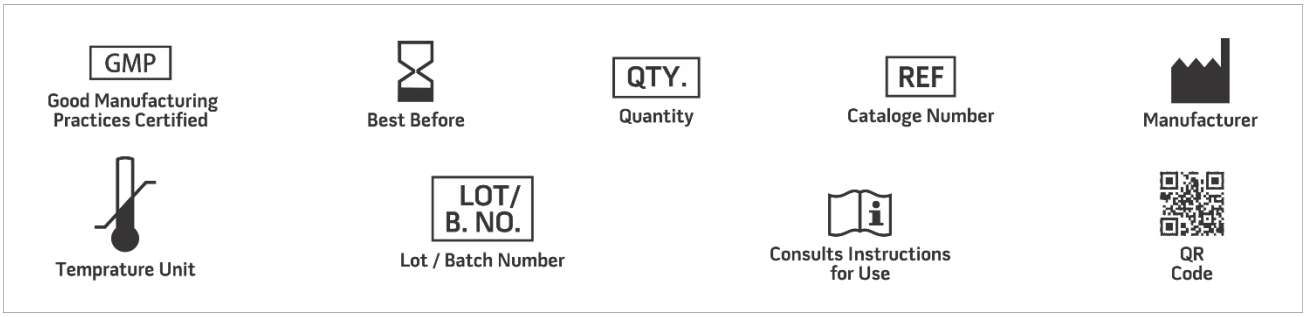

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

Revision: 08 Nov., 2019