TMV 269 – R-2A AGAR (VEG.)

INTENDED USE
For heterotrophic plate count of treated potable water using longer incubation time.

PRODUCT SUMMARY AND EXPLANATION
R-2A Agar (Veg) is prepared by completely replacing animal based peptones with vegetable peptones which make the medium free of BSE/TSE risks. R2A Agar (Veg) is the modification of R2A Agar developed by Reasoner and Geldreich used for the heterotrophic plate count of water samples. Plate Count Agar is recommended for the bacterial examination of potable water as it gives an estimate of the aerobic and facultatively anaerobic bacteria which grow best at 35°C on a rich medium. The organisms that are under stress or chlorine tolerant bacteria, in treated water grow slowly or are unable to grow in these conditions. R2A Agar (Veg) like the conventional medium is a less nutritioned medium thereby enabling better recovery of these bacteria from treated water under different incubation conditions.

COMPOSITION

Ingredients	Gms / Ltr
Veg Acid Hydrolysate	0.500
Yeast extract	0.500
Veg peptone No. 3	0.500
Dextrose	0.500
Starch soluble	0.500
Dipotassium phosphate	0.300
Magnesium sulphate	0.024
Sodium pyruvate	0.300
Agar	15.000

PRINCIPLE
This medium consists of Veg Peptone No.3, Veg acid hydrolysate and yeast extract which provide nitrogen, vitamins, amino acids, carbon and minerals. Dextrose serves as energy source. Soluble starch helps in the recovery of injured organisms by absorbing toxic metabolic byproducts and sodium pyruvate increases the recovery of stressed cells. Magnesium sulphate is a source of divalent cations and sulfate. Dipotassium phosphate is used to balance the pH of the medium.

INSTRUCTION FOR USE
- Dissolve 18.12 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 min. DO NOT OVERHEAT.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Light yellow to yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder..

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

pH (at 25°C) : 7.2 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Candida albicans	10231	10-100	Good-luxuriant	>=50%	35-37°C	7 Days
Escherichia coli	25922	50-100	Good-luxuriant	>=50%	35-37°C	7 Days
Salmonella serotype Enteritidis	13076	50-100	Good-luxuriant	>=50%	35-37°C	7 Days
Enterococcus faecalis	29212	50-100	Good-luxuriant	>=50%	35-37°C	7 Days
Salmonella serotype Typhi	6539	50-100	Good-luxuriant	>=50%	35-37°C	7 Days

PACKAGING:

In pack size of 100 gm and 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.

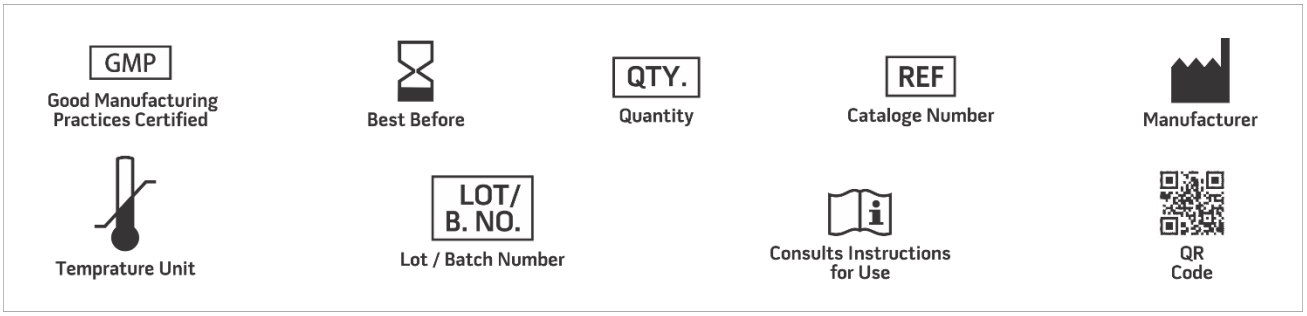
DISPOSAL

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

REFERENCES

1. Reasoner and Geldreich, 1985, Appl. Environ. Microbiol., 49:1.

2. Collins and Willoughby, 1962, Arch. Microbiol., 43:294.
3. Eaton A.D., Clesceri L.S. and Greenberg A.E., (Eds.), 2005, Standard Methods for the Examination of Water and Wastewater, 21st ed, APHA, Washington DC.



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

***For Lab Use Only**

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