TMV 666 – ASPARAGINE PROLINE BROTH (VEG.)

INTENDED USE

For cultivation of *Pseudomonas aeruginosa* from water by membrane filter technique.

PRODUCT SUMMARY AND EXPLANATION

Pseudomonas aeruginosa is one of the major contaminants of natural, fresh and recreational water, with the entry being contaminated by wastewater. *Pseudomonas aeruginosa* is an opportunistic pathogen that can multiply in recreational waters in the presence of sufficient nutrients. It produces a water soluble, fluorescent pigment in media containing asparagine and ethanol. Asparagine Proline Broth is recommended for cultivation of *Pseudomonas aeruginosa* by the membrane filter technique. The medium is recommended by BIS.

COMPOSITION

Ingredients	Gms / Ltr
DL Asparagine	2.00
L-Proline	1.000
Dipotassium phosphate	1.000
Magnesium sulphate	0.500
Potassium sulphate	10.000

PRINCIPLE

Asparagine Proline Broth contains both the enantiomeric forms of Aspragine, which is readily utilized by *Pseudomonas* for their growth. Phosphate and sulphate provide the ions for the growth as well as buffers the medium to promote the growth of the organism. When 1 ml of sample is to be analyzed, add 1 ml of sample to 4 ml of single strength medium (14.5 g/l). If larger portions of the sample (10 ml, 50 ml) are to be used, add the sample to an equal volume of the concentrated medium (23.2 g/l). Incubate at 37 ±1°C for 48 hours. Examine for growth and fluorescence. The growth is further sub cultured on Milk Agar w/ Cetrimide.

INSTRUCTION FOR USE

- Dissolve 14.5 grams (for single strength medium) or 23.2 grams (for concentrated medium) in 1000 ml distilled water containing 25 ml or 40 ml ethanol respectively.
- Heat to boiling to dissolve the medium completely. Distribute as desired in screw-capped bottles. Close the caps so that the seal in the lid just touches the lip of the bottle.
- Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.
- Tighten the caps of the bottles immediately after removal from the autoclave to prevent loss of ethanol by evaporation.

  It is not advisable to use polypropylene caps without seals. Alternatively, ethanol may be sterilized separately by filtration and then added aseptically to the sterile cooled medium.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	:	White to cream homogeneous free flowing powder.
Appearance of prepared medium	:	Colourless clear solution, without any precipitate .
pH (at 25°C)	:	7.2 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Pseudomonas aeruginosa	27853	50-100	Luxuriant with greenish yellow pigment	35-37°C	18 - 24 Hours
Escherichia coli	25922	50-100	None- poor	35-37°C	18 - 24 Hours

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.

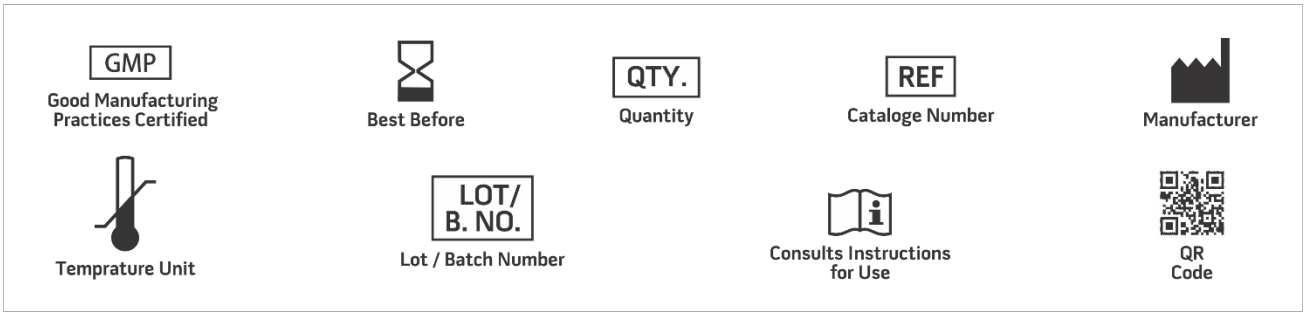
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Bureau of Indian Standards (BIS), 2005, Draft IS 13428:2005.



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

***For Lab Use Only**

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