

## CM 21487 – RAPPAPORT VASSILIADIS MEDIUM

### INTENDED USE

For enrichment of *Salmonellae* based on its ability to multiply selectively at high osmotic pressure, low pH and at 43 °C, with modest nutritional requirements.

### PRODUCT SUMMARY AND EXPLANATION

Rappaport Vassiliadis Medium is designed according to the revised formulation by Van Schothorst et al and is recommended for the selective enrichment of *Salmonellae* from food and environmental specimens. Present medium is a modification of the Rappaport Vassiliadis Enrichment Broth described by Van Schothorst and Renault. Addition of magnesium chloride to the medium was reported by Peterz et al. *Salmonella* species can be isolated from human faeces without pre-enrichment by using this medium.

### COMPOSITION

| Ingredients                    | Gms / Ltr |
|--------------------------------|-----------|
| Magnesium chloride             | 36.000    |
| Sodium chloride                | 7.200     |
| Monopotassium phosphate        | 1.440     |
| Papaic digest of soyabean meal | 4.500     |
| Malachite green                | 0.036     |

### PRINCIPLE

The medium contains papaic digest of soya bean meal which provides essential growth nutrients. Magnesium chloride raises the osmotic pressure in the medium. Malachite green is inhibitory to organisms other than *Salmonellae*. The low pH of the medium, combined with the presence of malachite green and magnesium chloride, helps to select for the highly resistant *Salmonella* species. Potassium phosphate buffers the medium to maintain the constant pH. Sodium chloride maintains the osmotic balance.

### INSTRUCTION FOR USE

- Dissolve 49.20 grams in 1000 ml distilled water.
- Gently heat if necessary to dissolve the medium completely.
- Dispense as desired and sterilize by autoclaving at 10 psi (115°C) for 15 minutes.

### QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder : Light yellow to light blue colour, homogeneous free flowing powder.
- Appearance of prepared medium : Bluish green colour, clear to slightly opalescent solution.
- pH (at 25°C) : 5.2± 0.2

### INTERPRETATION

Cultural characteristics observed after incubation.



| Microorganism          | ATCC  | Inoculum (CFU/ml) | Growth         | Recovery    | Appearance of colonies | Incubation Temperature | Incubation Period |
|------------------------|-------|-------------------|----------------|-------------|------------------------|------------------------|-------------------|
| Salmonella Enteritidis | 13076 | 50-100            | Good-Luxuriant | $\geq 50\%$ | Colourless             | 42-43°C                | 18-24Hours        |
| Salmonella Typhimurium | 14028 | 50-100            | Good-Luxuriant | $\geq 50\%$ | Colourless             | 42-43°C                | 18-24Hours        |
| Salmonella Typhi       | 6539  | 50-100            | Good-Luxuriant | $\geq 50\%$ | Colourless             | 42-43°C                | 18-24Hours        |
| Escherichia coli       | 25922 | 50-100            | None-poor      | 0-10%       | Pink-Red               | 42-43°C                | 18-24 Hours       |

#### PACKAGING:

Inpacksizeof100 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. Van Schothorst M., Renauld A. and VanBeek C., 1987, Food Microbiol., 4:11.
2. Van Schothorst M. and Renauld A., 1983, J. Appl. Bact., 54:209.
3. Peterz M., Wiberg C. and Norberg P., 1989, J. Appl. Bact., 66:523.

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|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <br>Good Manufacturing Practices Certified | <br>Best Before        | <br>Quantity                       | <br>Catalogue Number | <br>Manufacturer |
| <br>Temperature Unit                       | <br>Lot / Batch Number | <br>Consults Instructions for Use | <br>QR Code          |                                                                                                       |

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

