



## **Rappaport Vassiliadis (R.V.) Single Component Enrichment Broth**

**LAB 86**

### **Description**

Rappaport Vassiliadis Broth (R10 modification) was born out of a long series of experiments carried out to determine the correct levels of malachite green and magnesium chloride that would allow *Salmonella* to multiply freely yet still inhibit the other enteric organisms. This formulation has been shown to be superior to Mueller Kauffmann and Selenite Broth for the isolation of *Salmonella* from meat products. The development work carried out on the formulation shows that it is extremely efficient in detecting small numbers of *Salmonella* in heavily contaminated products. This formulation is very hygroscopic and will produce a slight exothermic reaction when mixed with water.

<b>Typical Formula</b>	<b>g/litre</b>
Soy Peptone	4.5
Sodium chloride	7.2
Potassium dihydrogen phosphate	1.26
Dipotassium hydrogen phosphate	0.18
Magnesium chloride anhydrous	13.58
Malachite green	0.033

### **Method for reconstitution**

Weigh 26.8 grams powder, disperse in 1 litre of deionised water, swirl to mix, when dissolved dispense in 10ml volumes in screw capped bottles and sterilise by autoclaving at 115°C for 15 minutes.

**Appearance:** Clear, blue fluid.

**pH:** 5.2 ± 0.2

**Minimum Q.C. organisms:** *E. coli* (inhibited) WDCM 00013  
*S. typhimurium* WDCM 00031

**Storage of Prepared Medium:** Capped container – 6 months at 2-8°C

**Inoculation:** From pre-enrichment broth in the proportions of 1-part inoculum to 99 parts R.V. Broth. Sub-culture onto either XLD Agar, M.L.C.B. Agar or other salmonella selective agars.

**Incubation:** 41.5 ± 0.5°C for 24 hours (incubator) or 42 ± 0.1°C for 24hrs (water bath).

### **References**

Vassiliadis, P., (1983) The Rappaport Vassiliadis (R.V.) Enrichment Medium for the Isolation of salmonellas: An overview J. Appl. Bacteriol. 56 69-76.

Vassiliadis, P., Mavromatti, CH. Efstratiou, M. and Chronas, G. (1985). A note on the stability of Rappaport-Vassiliadis Enrichment Medium J. Appl. Bacteriol. 59 143-145.

Bolton, F.G., Preston, P.H.L. Personal communication.

Int. J. Food Micro. Pharmacopoeia of culture media for Food Microbiology.

Peterz, M., Wiberg, C., and Norberg, P. 1989. The effect of incubation temperature and magnesium chloride concentration on growth of *Salmonella* in home-made and in commercially available dehydrated Rappaport-Vassiliadis broths.