

**MM0114**

## **Violet Red Bile Agar** (V.R.B.A.)

### **Use and description:**

Selective medium used for the enumeration of coliforms and thermotolerant coliforms in food products. The selectivity of the medium is due to the presence of bile salts and crystal violet. Selectivity can be increased by incubation at 42-44°C what can suppress the growth of Gram-negative bacteria. Quick lactose fermenters produce red colonies non-lactose or late-lactose fermenters produce colorless colonies.

### **Composition per liter:**

Sodium chloride.....	5.000 g
Agar.....	12.000 g
Peptone.....	7.000 g
Yeast extract.....	3.000 g
Bile salts.....	1.500 g
Lactose.....	10.000 g
Neutral red.....	0.030 g
Crystal violet.....	0.002 g

**Final pH of the ready to use medium:** 7.4 ± 0.2

### **Medium preparation:**

Add 38.5 grams of dehydrated culture medium to 1 liter distilled water and mix until evenly dispersed. Heat with repeated stirring and boil for two minutes. AUTOCLAVING IS NOT NECESSARY. Cool to 40 to 45°C and distribute into bottles or tubes.

### **Quality specification:**

Dehydrated medium: homogeneous, light reddish-beige fine powder.

Ready to use medium: clear to slightly hazy and reddish purple.

### **Microbiological response:**

<b>Organism</b>	<b>Result</b>
<i>Escherichia coli</i> ATCC 25922	Growth, pink to red colonies
<i>Salmonella typhimurium</i> ATCC 14028	Growth, clear colonies
<i>Enterobacter aerogenes</i> ATCC 13048	Growth, pink to red colonies
<i>Staphylococcus aureus</i> ATCC 25923	Growth, inhibited

### **Storage:**

Dehydrated medium should be stored between 10 to 25°C. Once opened, place the container in a dark, dry place. The dehydrated medium should not be used if there is any lump or color has changed from the original.