



## Ringer Salt Solution Powder

M525

Ringer Salt Solution Powder is recommended as an isotonic diluent for food, milk and dairy products during microbiological examinations.

### Composition\*\*

Ingredients	Gms / Litre
Sodium chloride	8.500
Potassium chloride	0.200
Calcium chloride	0.200
Sodium bicarbonate	0.010
Final pH ( at 25°C)	7.0±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Suspend 8.91 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Dispense as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

### Principle And Interpretation

Any diluent used in microbiological examination should be isotonic with the cells to be suspended. It should also preferably contain a buffer and certain ions necessary for the optimal maintenance of cells. Ringer Salt Solution Powder is recommended as an isotonic diluent for microbiological examination of foods (1, 2).

Ringer Salt Solution is isotonic with bacteria and thus prevents them from being subjected to osmotic stress when they are removed from their customary environment. It is physiologically superior to physiological saline for sensitive organisms.

Ringer Salt Solution is used as an isotonic diluting fluid and suspending fluid which preserves the cells in their original condition. The salts in the medium balances the osmotic equilibrium of the medium, thereby protecting the organisms from osmotic stress caused due to change in environment.

### Quality Control

#### Appearance

White to cream homogeneous free flowing powder

#### Colour and Clarity of prepared medium

Colourless clear solution without any precipitate

#### Reaction

Reaction of 0.891% w/v aqueous solution at 25°C. pH : 7.0±0.2

#### pH

6.80-7.20

#### Cultural Response

M525: Satisfactory results are obtained when used as a diluent during bacteriological examination of foods, milk, dairy products as well as for serial dilutions of pure cultures of bacteria.

### Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label.

### Reference

1. Finegold S. M and Baron E. J, 1986, Bailey and Scotts Diagnostic Microbiology, 7th Edition, The C.V. Mosby Co.
2. Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), 1996, Mackie and McCartney, Practical Medical Microbiology, 14th Edition, Churchill Livingstone

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