TM 273 – RINGER SALT SOLUTION POWDER

INTENDED USE

An isotonic diluent for food, milk and dairy products during microbiological testing.

PRODUCT SUMMARY AND EXPLANATION

Ringer Salt Solution Powder is recommended as an isotonic diluent for microbiological examination of foods. 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 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.

COMPOSITION

Ingredients	Gms / Ltr
Sodium chloride	8.500
Potassium chloride	0.200
Calcium chloride anhydrous	0.200
Sodium bicarbonate	0.010

PRINCIPLE

The medium 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.

INSTRUCTION FOR USE

- Dissolve 8.91 grams in 1000 ml purified/distilled water.
- Heat if necessary to dissolve the medium completely.
- Dispense as desired and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

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)	: 7.0 ± 0.2

INTERPRETATION

Good results were obtained, when Ringer Salt Solution was used as a diluent for bacteriological examination of food, dairy products and milk as well as for serial dilution of pure microbial cultures.

PACKAGING:

In pack size of 100 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.

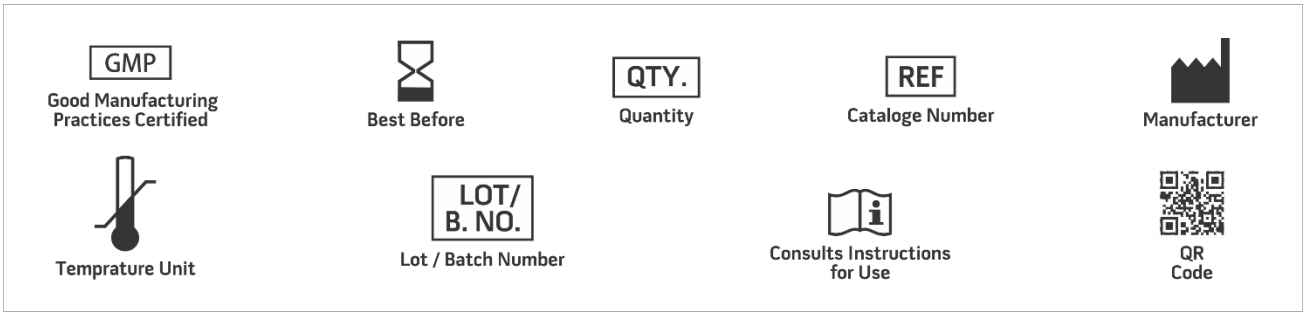
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
2. Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), 1996,Mackie and McCartney, Practical Medical Microbiology, 14th Edition, Churchill Livingstone
3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
4. Finegold S. M and Baron E. J, 1986, Bailey and Scotts Diagnostic Microbiology, 7th Edition, The C.V. Mosby Co.
5. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
6. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.



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

***For Lab Use Only**

Revision: 08 Nov., 2019