

## TM 209 - MAXIMUM RECOVERY DILUENT

### INTENDED USE

A protective and isotonic diluent used for maximal recovery of microorganisms.

### PRODUCT SUMMARY AND EXPLANATION

Maximum Recovery Diluent is formulated as recommended by ISO Committee for use as an isotonic diluent. Standard methods for the examination of foodstuffs require sample dilution to be carried out accurately to estimate the number of microorganisms.

### COMPOSITION

| Ingredients     | Gms / Ltr |
|-----------------|-----------|
| Peptone         | 1.000     |
| Sodium chloride | 8.500     |

### PRINCIPLE

Maximum Recovery Diluent combines protective effect of Peptone with the osmotic balance of physiological saline. The low concentration of Peptone helps to maintain the organisms for 1-2 hours of dilution without multiplication. The isotonic property of the diluent ensures the recovery of organisms from various sources, which may be vulnerable in distilled water or aqueous suspensions.

### INSTRUCTION FOR USE

- Dissolve 9.5 grams in 1000 ml purified/distilled water.
- Mix well and dispense into tubes or flasks as desired.
- Heat if necessary to dissolve the medium completely.
- Cool to 45-50°C. Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

### QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder** : White to pale yellow homogeneous free flowing powder.  
**Appearance of prepared medium** : Light yellow coloured clear solution without any precipitate.  
**pH (at 25°C)** : 7.0±0.2

### INTERPRETATION

Cultural characteristics observed on Soyabean Casein Digest Agar, after an incubation.

| Microorganism           | ATCC  | Inoculum (CFU/ml) | Growth (after 30 minutes) | Incubation Temperature | Incubation Period |
|-------------------------|-------|-------------------|---------------------------|------------------------|-------------------|
| <i>Escherichia coli</i> | 25922 | 50-100            | No change in numbers      | 35-37°C                | 18-24 Hours       |



|                                     |       |        |                      |         |             |
|-------------------------------------|-------|--------|----------------------|---------|-------------|
| <i>Staphylococcus subsp. aureus</i> | 25923 | 50-100 | No change in numbers | 35-37°C | 18-24 Hours |
|-------------------------------------|-------|--------|----------------------|---------|-------------|

**PACKAGING:**

In pack size of 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.

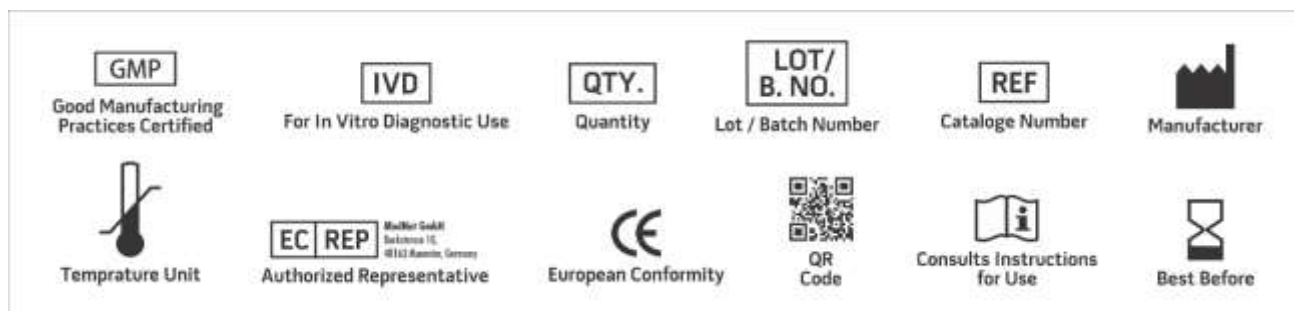
**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

**DISPOSAL**

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

**REFERENCES**

1. International Organization for the Standardization (ISO), ISO/DIS 6649.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2<sup>nd</sup> Edition.
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. Patterson J. W. and Cassells J. A., 1963, J. Appl. Bacteriol., 26:493.
5. Straker R. P. and Stokes J. L., 1957, Appl. Microbiol., 5:21



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

**\*For Lab Use Only**  
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