Maximum Recovery Diluent

Intended Use
Maximum Recovery Diluent is a protective and isotonic medium used for maximal recovery of microorganisms from a variety of sources.

Summary
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.

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.

Formula*

Ingredients	**g/L**
Peptone	1.0
Sodium chloride	8.5
Final pH (at 25°C)	7.0 ± 0.2

*Adjusted to suit performance parameters.

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of specimen
Clinical samples- urine samples, stool samples, Food samples

Specimen Collection and Handling
Ensure that all samples are properly labelled.
Follow appropriate techniques for handling samples as per established guidelines.
Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure.
The samples must be stored and tested within the permissible time duration.
After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 9.50 g of the powder in 1000 mL purified / distilled water.
2. Heat if necessary, to dissolve the powder completely.
3. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.
4. Cool to 45°C-50°C.
5. Mix well and dispense into tubes or flasks as desired.

Quality Control
Dehydrated Appearance: White to pale yellow coloured, homogeneous, free flowing powder.
Prepared Appearance: Colourless to light straw coloured, clear solution.
Cultural Response: Cultural characteristics is observed after recovery on Soyabean Casein Digest Agar, after an incubation at 35-37°C for 18-24 hours of cultures suspended in Maximum Recovery Diluent for 30 minutes.

Organisms (ATCC)	% Survival at zero minutes at room temperature	% Survival after 30 minutes at room temperature
Escherichia coli (25922)	≥ 100 %	≥ 100 %
Staphylococcus aureus subsp. *aureus* (25923)	≥ 100 %	≥ 100 %

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Precautions/Limitations

1. The results should be confirmed with additional standard testing.
2. The Durham's tubes should be free from bubbles before inoculation.
3. Avoid overheating double strength broth as inhibitory products may be formed.
4. When used for pre-enrichment of samples for the recovery of *Salmonella*, the growth from the medium should be sub-cultured to an appropriate medium for the identification of *Salmonella* species.

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Straker R. P. and Stokes J. L. (1957) *Appl. Microbiol*. 5. 21-25.
2. Patterson J. W. and Cassells J. A. (1963) *J. Appl. Bact*. 26. 493-497.
3. ISO/DIS 6649. *Meat and Meat Products-Detection and Enumeration of Clostridium perfringens*.
4. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201130720500	Dehydrated Culture Media	500 g