# Maximum Recovery Diluent (Tryptone Salt Broth) (NCM0085)

**Intended Use**
Maximum Recovery Diluent (Tryptone Salt Broth) is used as an isotonic diluent for maximum recovery of microorganisms and is not intended for use in the diagnosis of disease or other conditions in humans.

**Description**
An osmotically controlled solution which is an alternative to, and a replacement for, 1/4 strength Ringer's Tablets (NCM0191K). The presence of a low level of peptone lessens the physiological shock normally experienced by bacterial cells when they are introduced to a diluent such as Ringer's Solution. The level of peptone is such that multiplication of the organisms is not possible in the time in which the sample will be present in the diluent (1-2 hours). This formula is recommended by ISO 6887-1:2017

**Typical Formulation**

| | |
|---|---|
| Peptone | 1.0 g/L |
| Sodium Chloride | 8.5 g/L |

Final pH: 7.0 ± 0.2 at 25°C
Formula may be adjusted and/or supplemented as required to meet performance specifications.

**Precaution**
1. Refer to SDS

**Preparation**
1. Dissolve 9.5 grams of the medium in one liter of purified water.
2. Mix thoroughly.
3. Autoclave at 121ºC for 15 minutes.

**Test Procedure**
- General rules for the preparation of the initial suspension and dilutions – Refer to ISO 6887 Part 1:2017
- Specific rules for the preparation of meat and meat products – Refer to ISO 6887 Part 2:2017
- Specific rules for the preparation of fish and fishery products – Refer to ISO 6887 Part 3:2017
- Specific rules for the preparation of miscellaneous products- Refer to ISO 6887 Part 4:2017
- Specific rules for the preparation of milk and milk products – Refer to ISO 6887 Part 5:2017
- Specific rules for the preparation of samples taken at the primary production stage – Refer to ISO 6887 Part 6:2017

**Quality Control Specifications**
**Dehydrated Appearance:** Powder is homogeneous, free flowing and beige.

**Prepared Appearance:** Prepared medium is clear, colorless with no precipitate.

**Expected Cultural Response:** Cultures were held for 1 hours under ambient conditions, sub-cultured onto recovery media, and viable counts determined.

| MICROORGANISM | ATCC | APPROX. INOCULUM (CFU) | EXPECTED GROWTH |
|---|---|---|---|
| *Escherichia coli* | 25922 | 80-120 | ± 30% colonies/T0 |
| *Escherichia coli* | 8739 | 80-120 | ± 30% colonies/T0 |
| *Staphylococcus aureus* | 25923 | 80-120 | ± 30% colonies/T0 |

The organisms listed are the minimum that should be used for quality control testing.

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**Results**
Refer to appropriate references for test results.

**Expiration**
Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

**Limitation of the Procedure**
Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.

**Storage**
Store dehydrated culture media at 2-30°C away from direct sunlight. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

**References**
1. Straka, R.P. and Stokes, J.L. (1957). Rapid destruction of bacteria in commonly used diluents and its elimination. Appl. Microbiol. **5**: 21-25
2. ISO 6887-1:2017 Microbiology of the food chain – Preparation of test samples, initial suspension and decimal dilutions for microbiological examination – Part 1: General rules for the preparation of the initial suspension and dilutions
    a. ISO 6887 Part 2:2017Specific rules for the preparation of meat and meat products
    b. ISO 6887 Part 3:2017Specific rules for the preparation of fish and fishery products
    c. ISO 6887 Part 4:2017Specific rules for the preparation of miscellaneous products
    d. ISO 6887 Part 5:2017 Specific rules for the preparation of milk and milk products
    e. ISO 6887 Part 6:2017Specific rules for the preparation of samples taken at the primary production stage

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