Maximum recovery diluent (ISO) Code 84617.0500

Also known as
Peptone salt solution

Intended use
Isotonic diluent for maximal recovery of microorganisms (ISO 6887, all parts)

Formula * - Composition in g/L
Enzymatic digest of casein…… 1.0
Sodium chloride…… 8.5

* Adjusted and/or supplemented as required to meet performance criteria

Final pH 7.0 ± 0.2 at 25 °C.

Instructions for preparation
Dissolve 9.6 g in 1 litre of purified water, by heating if necessary. Dispense the medium into flasks or tubes of suitable capacity. Sterilise in the autoclave at 121 °C for 15 minutes.

Principle of the method and general information
Maximum recovery diluent contains a low concentration of enzymatic digest of casein that doesn't allow the growth of microorganisms within 1-2 hours of incubation. Sodium chloride, at the physiological concentration, guarantees an optimal osmotic pressure and preserves bacteria from osmotic shock.
Maximum recovery diluent is recommended by ISO 6887 (all parts), together with Buffered peptone water (Art. N° 84600.0500), as an isotonic diluent for sample preparation and dilutions.

Instruction for use
For laboratory use only.
The experimental procedure depends on the purpose for which the liquid medium is used. Refer to the ISO Standards for the details of the procedures.

Quality Control:
Physical characteristics:

Appearance of powder	Beige, fine, homogeneous, hygroscopic powder
Appearance of prepared medium	Pale yellow, limpid
pH (25°C)	7.0 ± 0.2

Microbiological characteristics:

Test Strains	Incubation T° / t / At.	Inoculation method	Growth characteristics	Productivity rate
E. coli ATCC 25922	20-25 °C / 45 min / AE	10^3/tube	Subculture on Tryptic soy agar plate	$0.5>T_1/T_0>1.5$
S. aureus ATCC 25923	20-25 °C / 45 min / AE	10^3/tube	Subculture on Tryptic soy agar plate	$0.5>T_1/T_0>1.5$

Notes
T0: original test strain count, T1: test strain count after 1 hour incubation
Incubation atmosphere AE: aerobic incubation
Microbiological characteristics tested in accordance to ISO/TS 11133-2
ATCC is a registered trade mark of American Type Culture Collection

References

- ISO 6887-1:1999 Microbiology of food and animal feeding stuffs -- Preparation of test samples, initial suspension and decimal dilutions for microbiological examination -- Part 1: General rules for the preparation of the initial suspension and decimal dilutions
- ISO 6887-2:2003 Microbiology of food and animal feeding stuffs -- Preparation of test samples, initial suspension and decimal dilutions for microbiological examination -- Part 2: Specific rules for the preparation of meat and meat products

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- ISO 6887-3:2003 Microbiology of food and animal feeding stuffs -- Preparation of test samples, initial suspension and decimal dilutions for microbiological examination -- Part 3: Specific rules for the preparation of fish and fishery products
- ISO 6887-4:2003 Microbiology of food and animal feeding stuffs -- Preparation of test samples, initial suspension and decimal dilutions for microbiological examination -- Part 4: Specific rules for the preparation of products other than milk and milk products, meat and meat products, and fish and fishery products.
- ISO 6887-5:2010 Microbiology of food and animal feeding stuffs -- Preparation of test samples, initial suspension and decimal dilutions for microbiological examination -- Part 5: Specific rules for the preparation of milk and milk products.

Storage conditions

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+10 ºC to 30 ºC and <60% RH).

Ordering information

84617.0500	Maximum recovery diluent (ISO)	Bottle of 500 g