OXFORD LAB FINE CHEM LLP
ISO 9001-2008 Certified Company

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Oxford
Range of
Laboratory Chemicals

TECHNICAL DATA SHEET

0.1% Peptone Salt Diluent

Principle

Peptone Salt Diluent is composed of peptone and sodium chloride. Peptone, serves the simplest source of the nitrogen, carbon and other growth factors such vitamins. It contains peptone at low concentration which provides nutrients for survival of microorganisms and hence protecting the organisms. Sodium chloride at 0.85% concentration maintains osmotic balance of medium thereby maintaining cell morphology and integrity. The pH of this diluent medium is near neutral range optimum for viability of microorganisms. It is recommended by ISO Committee (1) for use as an isotonic diluent and used as a diluent for carrying out dilutions of different samples.

Use: Recommended as a diluent, in certain test methods of food, dairy and water samples.

Contents*

Ingredients	Gram/Litre
Peptone	1.000
Sodium Chloride	8.500
pH at 25˚C	7.0 ±0.2

*** Formula adjusted for optimum performance and parameters**

Directions: Dissolve 9.50 grams in 1000 ml distilled water, boil to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121 °C) for 15 min, cool. Dissolve 10 gm of test sample in 90 ml of 0.1% Peptone salt diluent solution blend it at 15,000 to 20,000 revolutions per minute. Further a tenfold dilution may be prepared using 1.00 ml of it in 9.00 ml of sterile diluent within 15 minutes and mixed well. This is considered as 10-1 dilution. Sequential dilutions can be prepared using same diluent and counts obtained by spread plate or pour plate technique.

Specimens types analyzed

Food and dairy samples etc.

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Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	**Off white to pale yellow colored free flowing, homogeneous powder**
Reaction of 0.95 % solution	**7.0 ±0.2 at 25 ˚C**
pH	**6.80- 7.20**
Color and clarity of ready medium	**Pale yellow colored clear solution**
Growth Promotion properties	**Best at ≤ 100 CFU at 32-37 ºC for 18-72 h**
Indicative properties	**Optimum at ≤ 100 CFU at 32-37 ºC for 18-48 h**
Negative control	**Performed using sterile distilled water**

Different Microbial Response: Cultural characteristics observed on Soyabean Casein Digest Agar (RDMSCDA-01), after incubation at 35±2°C for 18-48 hours of cultures suspended in 0.1% Peptone Salt diluent solution for 30 minutes.

Organism	ATCC	Inoculum (CFU)	Recovery after 30 minutes
Staphylococcus aureus	**25923**	**50-100**	**No change in CFU**
Escherichia coli	**8739**	**50-100**	**No change in CFU**

Storage and Shelf Life: The product is highly hygroscopic; keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label. Note: Sterilize media immediately after reconstitution.

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Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

1. **Atlas, R. M. (2005). Handbook of media for environmental microbiology. CRC press.**
2. **International Organization for Standardization (ISO), ISO/DIS 6649.**

Disclaimer:

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