OXFORD LAB FINE CHEM LLP
ISO 9001-2008 Certified Company

Regd Office: Unit no 12, 1st Floor,
Neminath Industrial Estate No.6,
Navghar, Vasai (East), Palghar - 410210.
Maharashtra, INDIA.

Tel: +91 250 2390032 / 2390989 / 2390990
Email: sales@oxfordlabchem.com /
info@oxfordlabchem.com
Web: www.oxfordlabchem.com

Oxford
Range of
Laboratory Chemicals

TECHNICAL DATA SHEET

Cetrimide Agar Base

Principle

Cetrimide agar is described by King et.al (1954) and is prepared in accordance with the harmonized principles of USP/EP/IP. Recommended as selective medium for the isolation of *Pseudomonas aeruginosa* in pharmaceutical testing and microbial limit testing of pharmaceutical products and raw material used in pharmaceutical industries. Media consists of pancreatic digest of gelatin, magnesium chloride, dipotassium sulfate, cetrimide and agar. The pancreatic digest of gelatin and peptone provides essential nutrients, vitamins and nitrogenous factors and growth factors required for growth of microorganisms. The magnesium chloride and potassium sulphate stimulate pyocyanin and fluorescein production. Cetrimide is the selective agent and inhibits most bacteria by acting as a detergent. The cetrimide came in contact with bacteria, causes the release of nitrogen and phosphorous from the bacterial cell other than *Pseudomonas aeruginosa*. Glycerol (not provided) is supplemented as a source of carbon. Agar is the solidifying agent.

Use: Recommended for the isolation of *Pseudomonas aeruginosa* from pharmaceutical products in accordance with the microbial limit testing by harmonized principles of USP/EP/IP.

Contents*

Ingredients	Gram/Liter
Pancreatic Digest of Gelatin	20.000
Magnesium Chloride	1.400
Dipotassium Sulfate	10.000
Cetrimide	0.300
Agar	13.600
pH at 25˚C	7.2 ±0.2

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

Directions: Dissolve 45.50 grams in 1000 ml distilled water containing 1% glycerol, boil to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 min, cool it to 42-45°C and distribute aseptically in sterile petri plates and allow to solidify. Ensure complete solidification and inoculate test sample aseptically.

Specimens types analyzed
Pharmaceutical samples, clinical and non-clinical 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	Beige colored free flowing, homogeneous powder
Reaction of 4.55% solution	7.2 ±0.2 at 25 ˚C (with 1% glycerol solution)
pH	7.00- 7.40
Gelling	Firm comparable with 1.36% agar gel
Color and clarity of ready medium	Light amber colored opalescent gel with a slight precipitate
Growth Promotion properties	Best at ≤ 100 CFU at 32-37 ^{o}C for 18-72 h
Indicative properties	Optimum at ≤ 100 CFU at 32-37 ^{o}C for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response: Cultural characteristics observed after incubation at 35±2°C for 18-72 hours.

Organism	ATCC	Inoculum CFU	Growth	Recovery
Pseudomonas aeruginosa	27853	50-100	Luxurious	≥ 50%
Pseudomonas aeruginosa	10145	50-100	Luxurious	≥ 50%
Escherichia coli	8739	50-100	Inhibited	---
Staphylococcus aureus	25923	50-100	Inhibited	---
Salmonella typhimurium	14028	50-100	Inhibited	---

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

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8. ***The Japanese Pharmacopoeia*, 17th Ed. (2016), The Ministry of Health, Labour And Welfare**
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Disclaimer:

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