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

MYP Agar Base
(Phenol Red Egg Yolk Polymyxin Agar Base)

Principle

MYP Agar Base is also referred to as Mannitol-Egg Yolk-Polymyxin Agar. Mossel et al. (1998) developed MYP Agar for the isolation of *Bacillus cereus* in foods. MYP Agar Base is recommended by FDA BAM M95 to isolate and enumerate *B. cereus* from foods. This medium differentiates *B. cereus* from other bacteria on the basis of lecithinase activity, mannitol fermentation and resistance to polymyxin. Peptone and meat extract provide nitrogen and carbon source, long chain amino acids, vitamins and other essential nutrients. Mannitol acts as the carbon source that upon fermentation changes color of medium from red to yellow. Phenol red is pH indicator dye use to check Mannitol fermentation. Egg yolk emulsion aids in the differentiation of lecithinase producing colonies, which are surrounded by a zone of white precipitate. Polymixin B Sulphate acts as the inhibitor to restrict the growth of gram negative bacteria. These properties also help in the differentiation of *B. cereus* from other bacillus species.

Use: For the isolation and identification of pathogenic staphylococci and bacilli

Contents*

Ingredients	Gram/Litre
Peptone	1.00
Meat extract	10.00
Mannitol	10.00
Sodium chloride	10.00
Phenol red (1% alcoholic solution)	2.5 (ml)
Agar	15.00
pH at 25 ˚C	7.2±0.2

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

Directions: Dissolve 46.00 grams in 950 ml distilled water, boil to dissolve the medium completely and sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 min, cool it to 42-45 °C, aseptically add 200 units of polymyxin B sulphate solution and 50 ml egg yolk emulsion, mix well and pour into sterile petri plates. Ensure complete solidification and inoculate test sample aseptically.

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

Specimens' types analyzed
Brewery and food samples etc.

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 4.6% solution	**7.2 ±0.2 at 25 ˚C**
pH	**7.00 – 7.40**
Gelling	**Firm comparable with 1.5% agar gel**
Color and clarity of ready medium	**Basal medium: Red colored clear to slightly opalescent gel. After Addition of Egg Yolk Emulsion: Light orange colored opaque gel forms in Petri plates**
Growth Promotion properties	**Best at ≤ 100 CFU at 25-30 ºC for 18-72 h**
Negative control	**Performed using sterile distilled water**

Different Microbial Response
Cultural characteristics observed with added Egg Yolk Emulsion and Polymyxin B Sulphate after incubation at 32°C for 24-48 hours. (Inoculum CFU: 50-100)

Organism	ATCC	Growth	Recovery	Color of colony	Lecithinase activity
Bacillus cereus	**10876**	**Luxurious**	**50-60 %**	**Red**	**Positive opaque zone**
Bacillus subtilis	**6633**	**Luxurious**	**50-60 %**	**Yellow**	**Negative**
Escherichia coli	**8739**	**None-poor**	**5-10 %**	**Cream**	**negative**

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

Storage and Shelf Life: Hygroscopic; keep container tightly closed. Store in cool dry place.

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. **Andrews W. (1995). Microbial methods. In Official methods of analysis of AOAC International, 16th Ed. AOAC International. Arlington, VA.**
2. **Atlas, R. M. (2005). *Handbook of media for environmental microbiology*. CRC press.**
3. **Downes, F. P. and K. Ito (eds). (2001). Compendium of methods for the microbiological examination of foods, 4th Ed. American Public Health Association, Washington, D.C.**
4. **Mossel, D. A. A., M. J. Koopman, and E. Jongerius. (1967). Enumeration of Bacillus cereus in foods. Appl. Microbiol. 15:650-653.**
5. **www.fda.gov/Food/ScienceResearch/LaboratoryMethods/BacteriologicalAnalyticalmanualBAM/def ault.htm**

Disclaimer:

****

The information contained herein in good faith but makes no representations as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.
Oxford Lab Fine Chem LLP makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, Oxford Lab Fine Chem LLP will not be responsible for damages resulting from use of or reliance upon this information.