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

M-Endo Agar, LES

Principle

M-Endo agar is composed of tryptone, peptone, tryptose, yeast extract, lactose, Dipotassium phosphate monobasic and dibasic, sodium chloride, sodium deoxycholate, sodium lauryl sulphate, sodium sulphite, basic fuchsin and agar. tryptone, peptone, tryptose, yeast extract, is source of nitrogenous substances and other essential growth nutrients for the organisms. Lactose is carbon source and phosphate is act as buffering agent. Sodium chloride maing osmatic equilibrium. Sodium deoxycholate, Sodium sulphite and basic fuchsin is selective agent inhibit the growth of gram positive bacteria. Coliforms give pink color colonies due to lactose fermentation while lactose non-fermenters produce colourless colonies. In the first step of enrichment, cotton absorbent pad is impregnated with Lauryl Sulphate Broth. Aseptically transfer water sample through the membrane filter, placed on it and incubated without inverting for 2.0 hours at 35°C in a humid atmosphere. After incubation, the membrane filter is aseptically transferred to the M-Endo Agar plate and incubated at 35°C for 24 hours. Otherwise membrane filter pad can be placed inside the lid of Petri plate of M-Endo Agar and then soaked with 2.00 ml Lauryl Sulphate Broth and incubated for 1 - 1½ hours at 35°C. In the second step, the prepared membrane filter is kept directly on the agar surface and incubated as described above. Presumptive coliforms produce golden green colonies with metallic sheen within 24 hours of incubation. Coliform density calculation: Note the coliform density in terms of total coliforms/100 ml. Extrapolate the count using membrane filters with 20-80 coliform colonies but not more than 200 of all types per membrane.
The formula for calculating the count is as follows:
Total coliform colonies/100 ml = coliform colonies /ml of sample filtered x 100

Use: for the enumeration of coliforms in water using a two-step membrane filter technique

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

Contents*

Ingredients	Gram/Litre
Tryptone	3.700
Peptone	3.700
Tryptose	7.500
Yeast extract	1.200
Lactose	9.400
Dipotassium phosphate monobasic	3.300
Dipotassium phosphate dibasic	1.000
Sodium chloride	3.700
Sodium deoxycholate	0.100
Sodium lauryl sulphate	0.050
Sodium sulphite	1.600
Basic fuchsin	0.800
Agar	15.000
pH at 25˚C	7.2 ±0.2

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

Directions: Dissolve 51.00 grams in 980 ml distilled water. Heat to boiling to dissolve the medium completely. Do not autoclave, cool it to 45-50°C and add 20 ml of 95% ethanol. Mix and dispense 4.00 ml amount into 60 mm petri plates. Distribute aseptically in petri plates and allow to solidify. Ensure complete solidification and inoculate test sample aseptically. DO NOT EXPOSE PLATES TO DIRECT SUNLIGHT.

Specimens' types analyzed

Water and food and dairy samples

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.

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

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	**Light pink to dark red colored, free-flowing, homogeneous**
Reaction of 5.10% solution	**7.2 ±0.2 at 25 ˚C**
pH	**7.0- 7.4**
Gelling	**Firm comparable with 1.5% agar gel**
Color and clarity of ready medium	**Red colored, clear opalescent gel**
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 after an incubation at 34-38°C for 24 hours

Organism	ATCC	Growth	Recovery (%)	Colony color
Escherichia coli	**8739**	**Luxurious**	**60-70%**	**Pink with metallic sheen**
Salmonella Typhimurium	**14028**	**Luxurious**	**60-70 %**	**Colorless to pink**
Staphylococcus aureus	**25923**	**Inhibited**	**--**	**--**

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.

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

Reference

1. **Atlas, R. M. (2005). *Handbook of media for environmental microbiology*. CRC press.**
2. **Baird R.B., Eaton A.D., and Rice E.W., (Eds.), (2015), *Standard Methods for the Examination of Water and***
3. **Jorgensen,J.H., Pfaller , M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015), *Manual of Clinical Microbiology*, 11th Edition. Vol. 1 *Wastewater*, 23rd Ed., APHA, Washington, D.C.**
4. **Salfinger Y., and Tortorello M.L. Fifth (Ed.), (2015), *Compendium of Methods for the Microbiological Examination of Foods*, 5th Ed., American Public Health Association, Washington, D.C.**
5. **Wehr H. M. and Frank J. H., (2004), *Standard Methods for the Microbiological Examination of Dairy Products*, 17th Ed., APHA Inc., Washington, D.C.**

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.