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Yeast Extract Agar

DM496

Intended use
A medium for the enumeration of microorganisms in water.

Contents
See pack label.

Formulation*

Material:	Concentration in medium:
Yeast Extract	3.0g/litre
Soy peptone	5.0g/litre
Agar A	12.0g/litre
Final pH: 7.4 ± 0.2	

Storage and shelf life
All dehydrated culture media containers should be kept tightly closed and stored in a dry place at 10 to 25°C until the expiry date shown on the pack label.

Precautions
For *in vitro* diagnostic use only. Observe approved hazard precautions and aseptic techniques. To be used only by adequately trained and qualified laboratory personnel. Sterilise all biohazard waste before disposal. Refer to Product Safety Data sheet (available on request or via MAST® website).

Materials required but not provided
Standard microbiological supplies and equipment such as loops, MAST® selective supplements, swabs, applicator sticks, incinerators and incubators, etc., as well as serological and biochemical reagents and additives such as blood.

Procedure
1. Refer to pack label for quantities and volumes required. Prepare MAST® Yeast Extract Agar (DM496D) by suspending the powder in distilled or deionised water. For sachet packs, dissolve the entire contents of the sachet in the volume shown on the label.
2. Boil gently to dissolve the agar and distribute 15ml amounts into universal containers.
3. Autoclave at 115°C (10 p.s.i.) for 10 minutes.
4. Allow the medium to cool to 50 to 55°C before use.
5. Prepared culture medium may be used immediately or stored at 2 to 8°C for up to one week before use.
6. Prepare an appropriate series of tenfold dilutions of the water sample using sterile ¼ strength Ringers solution as diluent.
7. Pipette 1ml volumes from the highest dilution into each of two Petri dishes. To each dish add 15ml of MAST® Yeast Extract Agar cooled to 50 to 55°C. Mix the contents using a combination of gentle clockwise and anti-clockwise rotations and to and fro movements.
8. Repeat the procedure with the remaining dilutions and the undiluted sample but prepare four plates for each, two for incubation at 20 to 22°C and two for incubation at 35 to 37°C.
9. Allow the plates to set.
10. Incubate those plates prepared from the highest dilution and 2 plates of each of the other samples at 20 to 22°C for three days. Incubate the remaining plates at 35 to 37°C for 24 hours.

Interpretation of results
After incubation count the number of colonies grown in the plates containing the undiluted samples unless there are more than 300 colonies. In this instance count from a diluted sample in which the number of colonies lies between 30 and 300. If the plate containing the highest dilution produces more than 300 colonies then an approximation has to be made. In each instance two plates should be counted. Average the count from the pairs of plates selected. Multiply the result by the dilution factor for the final report.

Quality control
Check for signs of deterioration. Quality control must be performed with at least one organism to demonstrate expected performance. Do not use the product if the result with the control organism is incorrect. The list below illustrates a range of performance control strains which the end user can easily obtain.

Test Organisms	Result
Escherichia coli ATCC® 25922	Growth
Staphylococcus epidermidis ATCC® 14990	Growth

References
Bibliography available on request.

IFU396 GB 08/20 V5

*Formulation may change to meet performance criteria