

TECHNICAL DATA SHEET

Tryptone Yeast Extract Agar

Principle

Tryptone yeast extract agar is simple media used for enumeration of microbial count from potable water, waste water. It is composed of tryptone, yeast extract, and agar. Tryptone and yeast extract provide nitrogen, carbon, vitamins and other essential growth factors. Agar is solidifying agent.

Use: For estimation of microbial counts in water

Contents*

Ingredients

Tryptone

Yeast Extract

Agar

pH at 25°C

Gram/Litre

6.00

3.00

12.00

7.2 ± 0.2

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

Directions : Dissolve 21.00 grams in 1000 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 and distribute aseptically in petri plates. Ensure complete solidification and inoculate test sample aseptically.

Specimens types analyzed

Water 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.

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ISO 9001-2008 Certified Company

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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 to medium beige colored, free flowing, homogeneous powder
Reaction of 2.10% solution	7.2 ± 0.2 at 25 °C
pH	7.00 - 7.40
Gelling	Firm comparable with 1.2% agar gel
Color and clarity of ready medium	Pale yellow colored, slightly opalescent gel
Growth Promotion properties	Best at ≤ 100 CFU at 32-37 °C for 18-72 h
Indicative properties	Optimum at ≤ 100 CFU at 32-37 °C for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response

Prepare medium as per label directions, Inoculate with 50-100 CFU of test organism. Incubate at 35 ± 2°C for 18-24 hours.

Organism	ATCC	Inoculum	Growth	Recovery
<i>Escherichia coli</i>	8739	50-100	Luxuriant	≥ 75%
<i>Klebsiella aerogenes</i>	13048	50-100	Luxuriant	≥ 75%
<i>Salmonella typhimurium</i>	14028	50-100	Luxuriant	≥ 75%
<i>Salmonella enteritidis</i>	13076	50-100	Luxuriant	≥ 75%
<i>Salmonella enterica</i>	9150	50-100	Luxuriant	≥ 75%

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. *Difco Manual* (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.

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