

# TECHNICAL DATA SHEET

Article No. 9684

**Tryptone Yeast Extract Agar, prepared plates**

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## SPECIFICATION

Solid medium used for the enumeration of water microorganisms according to ISO standards.

Color: yellowish  
pH: 7.2 ±0.2 at 25 °C

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## COMPOSITION IN G/L

Yeast Extract	3.0
Tryptone	6.0
Agar	15.0

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## PACKAGING DETAILS

### 9684-20PLATES

20 prepared plates 90 mm

Content: 21 ±2 ml

Packaging unit: 1 box with 2 packs of 10 plates/pack. Single cellophane.

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## GUIDELINES

### Description:

This medium, formulated according to ISO Standard 6222 and others, is used for enumeration of heterotrophic microorganisms in water.

### Technique:

Use a water sample obtained according to ISO Standard 5667-2 and 5667-3, make a decimal dilution series (see ISO Standard 6887) using 1/4 Ringer Solution and take aliquots to 2 parallel series of plates. Incubate one of the series at 36 ±2 °C for 48 ±2 hours and the other one at 22 °C for 3 days (72 ±4 hours).

In order to achieve good count, select plates with 30-300 colonies. Interpretation of results is as number of colony forming units per milliliter (CFU/ml) of sample for each temperature of incubation. If there are no colonies detectable for the undiluted sample express the results as "none detected in 1 ml". If there are more than 300 colonies in the highest dilution express the results as ">300 CFU/ml".

Use medium according to intended purposes, samples and validated methods.

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## MICROBIOLOGICAL CONTROL

Inoculate: Practical range 100 ±20 CFU. Min. 50 CFU (Productivity).

Analytical methodology acc. to ISO 11133:2014/A1:2018; A2:2020.

Aerobiosis. Incubation at 36 ±2 °C, reading at 44 ±4 h.

Reference medium: YEA (validated). Microbiological control according to ISO 11133:2014/A1:2018.

Microorganism	Growth
<i>Escherichia coli</i> ATCC® 8739, WDCM 00012	Good (≥70 %)
<i>Stph. aureus</i> ATCC® 25923, WDCM 00034	Good (≥70 %)
<i>Escherichia coli</i> ATCC® 25922, WDCM 00013	Good (≥70 %)
<i>Bacillus subtilis</i> ATCC® 6633, WDCM 00003	Good (≥70 %)
<i>P. aeruginosa</i> ATCC® 27853, WDCM 00025	Good (≥70 %)

### Sterility control:

Incubation 48 h at 30-35 °C and 48 h at 20-25 °C: NO GROWTH.

Check at 7 days after incubation in same conditions.

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## BIBLIOGRAPHY

- ISO Standard 6222 (1999) Water Quality - Enumeration of cultivable microorganisms. Colony count by inoculation in a nutrient agar culture.
- ISO Standard 5667-2 (1991) Water Quality - Sampling - Guidance on sampling techniques.
- ISO Standard 5667-3 (1996) Water Quality - Sampling - Guidance on the preservation and handling of samples.
- ISO Standard 6887 (1999) Microbiology - General - Guidance for the preparation of dilutions for microbiological examination.
- ISO Standard 8199 (1988) Water Quality - General guide to the enumeration of microorganisms by culture.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.

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## STORAGE

2-14 °C

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## SHELF LIFE

3 months

