

## Technical Data Sheet

# ReadyTube™ 100

## Yeast Extract Agar

### acc. ISO 6222

Ordering number: 1. 46352.0010

For the determination of the colony count in drinking water at incubation temperatures of +22 °C and +36 °C.

The medium conforms to the requirements of ISO 6222:1999 and the EU COUNCIL DIRECTIVE 98/83/EC on the quality of water intended for human consumption.

### Mode of Action

Yeast extract agar is a medium rich in nutrients which permits the recovery of a wide spectrum of bacteria, yeast and moulds.

Water can contain a large number of microorganisms coming in particular from the soil and vegetation. The combination of a nutrient rich culture medium and incubation temperatures of +22 °C and +36 °C allows the detection of a large number of these organisms.

### Typical Composition

Specified by ISO 6222		ReadyTube™ 100 Yeast Extract	
Tryptone (Peptone from Casein, pancreatic)	6 g/l	Tryptone	6 g/l
Dehydrated Yeast Extract	3 g/l	Yeast extract	3 g/l
Agar	10-20 g/l	Agar	15 g/l
Water	1000 ml/l	Water	n/a
pH at 25 °C	7.2 ± 0.2	pH at 25 °C	7.2 ± 0.2

The appearance of the medium is clear and yellowish.

Heat the bottled agar in steam or boiling water bath approx. 45 min.

**Caution: avoid excessive or prolonged heating.**

Cool the molten agar down to 45-50 °C in a water bath and maintain temperature until use.

Use the molten medium within 4 h of its preparation.

## Application and Interpretation

The medium can be melted by placing in a boiling water bath as specified in ISO 11133. *Note: Avoid over heating the medium. Remove it from the boiling water bath once melted.* Transfer the molten medium in a thermostatically controlled water bath. Maintain temperature from 47°C to 50°C. It is recommended to use the medium as soon as possible.

The determination of the total microbial count is carried out by the pour plate method. 15-20 ml of culture medium (45 °C) are added to 1 ml of sample and mixed well.

Samples are incubated at 34-38 °C for 40-48 h and 20-24 °C for 64-72 h in parallel.

The colonies per plate are counted and the microbial count per ml is calculated for each incubation temperature separately.

## Storage and Shelf Life

The product can be used for sampling until the expiry date if stored upright, protected from light and properly sealed at +4 °C to +12 °C.

The testing procedures as described on the CoA can be started up to the expiry date printed on the label.

## Disposal

Please mind the respective regulations for the disposal of used culture medium (e.g. autoclave for 20 min at 121 °C, disinfect, incinerate etc.).

## Quality Control

Function	Control strains	Incubation	Reference medium	Method of control	Expected results
Productivity	<i>Bacillus subtilis</i> ATCC® 6633	40-48 h at 34-38 °C and 64-72 h at 20-24 °C	Previously validated batch of YEA	Quantitative	Recovery ≥ 70 %
	<i>Escherichia coli</i> ATCC® 8739				
	<i>Escherichia coli</i> ATCC® 25922				

Please refer to the actual batch related Certificate of Analysis.

The performance test is in accordance with the current version of EN ISO 11133

A recovery rate of 70 % is equivalent to a productivity value of 0.7.



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## Literature

EU COUNCIL DIRECTIVE 98/83/EC on the quality of water intended for human consumption.

**ISO 6222:1999:** Water quality – Colony count by inoculation in a nutrient agar culture medium.

**ISO 11133:2014:** Microbiology of food and animal feed and water – Preparation, production, storage and performance testing of culture media

**ISO 7218 AMD 1: 2013:** Microbiology of food and animal feeding stuffs — General requirements and guidance for microbiological examinations

## Ordering Information

Product	Cat. No.	Pack size	Other pack sizes available
ReadyTube™ 100 Yeast Extract ISO 6222	1.46352.0010	10 x 100 ml	20 x 18 ml 100 x 18 ml 6 x 400 ml
GranuCult™ Yeast Extract Agar acc ISO 6222	1.13116.0500	500 g	

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