

Technical Data Sheet

ReadyTube™ 400

Yeast Extract Agar

acc. ISO 6222

Ordering number: 1.46374.0006

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™ 400 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™ 400 Yeast Extract ISO 6222	1.46374.0006	6 x 400 ml	20 x 18 ml 100 x 18 ml 10 x 100 ml
GranuCult™ Yeast Extract Agar acc ISO 6222	1.13116.0500	500 g	

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