

PRODUCT CODE: 416106

## Tryptone Yeast Extract Agar (ISO 6222:1999) (Dehydrated Culture Media) for microbiology

### Preparation

Suspend 24 grams of the medium in one litre of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121°C for 15 minutes. Cool to 45-50°C, mix well and dispense into plates. The prepared medium should be store at 8-15°C.

The prepared medium is amber, slightly opalescent. The dehydrated medium should be homogeneous, free-flowing and beige in colour. If there are any physical changes, discard the medium.

### Uses

YEAST EXTRACT AGAR ISO 6222 is a medium rich in nutrients that permits the recovery of a wide spectrum of bacteria, yeasts and molds. This medium is recommended by ISO 6222 for the plate count of microorganisms in all types of water, including for human consumption.

Tryptone provides nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is the water-soluble portion of hydrolysed yeast and is a source of vitamins, particularly of the B-group. Bacteriological agar is the solidifying agent. The norm ISO 6222 recommend this medium for the enumeration of culturable microorganisms in potable water at 36°C and 22°C.

Prepare decimal dilutions and make plate counts using the pour plate method. Incubate two series of plates, one at 36± 2°C for 44 ± 4 hours and the other plates at 22 ±2°C for 68 ± 4 hours. Count the colonies present on plates containing less than 300 colonies. Enumeration can be done using the automated colony counters.

### Composition

See in Data Sheet (TDS).

### Microbiological Test

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 36 ± 2°C and observed after 44 ± 4 hours.

Microorganism	Growth
<i>Escherichia coli</i> ATCC 25922	Good
<i>Staphylococcus aureus</i> ATCC 25923	Good

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of  $22 \pm 2^\circ\text{C}$  and observed after  $68 \pm 4$  hours.

Microorganism	Growth
<i>Candida albicans</i> AATCC 10231	Good
<i>Aspergillus brasiliensis</i> ATCC 16404	Good
<i>Penicillium chrysogenum</i> ATCC 8537	Good

According ISO 11133 ( $44 \pm 4$ ) h/ ( $36 \pm 2$ ) °C Productivity

Microorganism	Inoculum (cfu/ml)	Reference Media	Productivity Quantitative
<i>Escherichia coli</i> ATCC 25922	$10^2$	Media batch YEA already validated	PR $\geq$ 0.7
<i>Bacillus subtilis</i> ATCC 6633	$10^2$	Media batch YEA already validated	PR $\geq$ 0.7

## Storage

Once opened keep powdered medium closed to avoid hydration.

JM180914