



## Yeast Autolysate

RM194

### Principle And Interpretation

Yeast Autolysate is prepared by drying the extract from autolysing yeast cells (*Saccharomyces*) specially cultivated for this purpose. It is rich in vitamins and other nutritive substances such as free amino acids. It is a brownish yellow coloured, homogeneous, free flowing powder, that readily dissolves in distilled water. An aqueous solution of it is yellowish brown coloured and remains clear after autoclaving. It is recommended for use in microbial culture media, fermentation and other biological products.

### Quality Control

#### Appearance

Light yellow to brownish yellow homogenous free flowing powder, having characteristic odour but not putrescent.

#### Solubility

Soluble in distilled/ purified water, insoluble in alcohol.

#### Clarity

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

#### Reaction

Reaction of 2% w/v aqueous solution at 25°C.

#### pH

6.50-7.50

#### Microbial Load:

##### Total aerobic microbial count (cfu/gm)

By plate method when incubated at 30-35°C for not less than 3 days.

Bacterial Count :  $\leq$  2000 CFU/gram

##### Total Yeast and mould count (cfu/gm)

By plate method when incubated at 20-25°C for not less than 5 days.

Yeast & mould Count :  $\leq$  100 CFU/gram

#### Test for Pathogens

1. *Escherichia coli*- Negative in 10 gms of sample 2. *Salmonella* species- Negative in 10 gms of sample 3. *Pseudomonas aeruginosa*- Negative in 10 gms of sample 4. *Staphylococcus aureus*- Negative in 10 gms of sample 5. *Candida albicans*- Negative in 10 gms of sample 6. *Clostridia*- Negative in 10 gms of sample

#### Indole Test

Tryptophan content: Passes

#### Cultural Response

Cultural response observed after an incubation at 35-37°C for 18-24 hours by preparing Plate Count Agar (M091) and Plate Count HiVeg™ Agar (MV091) using Yeast Autolysate as an ingredient.

#### Cultural Response

Organism	Growth
<i>Bacillus subtilis</i> ATCC 6633	Luxuriant
<i>Enterococcus faecalis</i> ATCC 29212	Luxuriant
<i>Escherichia coli</i> ATCC 25922	Luxuriant
<i>Lactobacillus casei</i> ATCC 9595	Luxuriant
<i>Staphylococcus aureus</i> ATCC 25923	Luxuriant
<i>Streptococcus pyogenes</i> ATCC 19615	Luxuriant

**Chemical Analysis**

Total Nitrogen	$\geq 11.50\%$
Amino Nitrogen	$\geq 3.50\%$
Sodium chloride	$\leq 5.0\%$
Loss on drying	$\leq 5.0\%$
Residue on ignition	$\leq 15.0\%$

**Storage and Shelf Life**

Store between 10-30°C in tightly closed container and away from bright light. Use before expiry date on label. On opening, product should be properly stored in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use.

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