



Yeast Extract Powder

RM027

It is rich in vitamins especially those belonging to B complex and is often used to supply these factors in culture media at a concentration of 0.3% to 0.5%. It is particularly used in media for cultivation of microorganisms encountered in milk or other dairy products. Also used with Meat extract B Powder or in place of Meat extract B Powder.

Principle And Interpretation

Yeast Extract Powder is manufactured from selected strain of *Saccharomyces* under controlled condition by retaining, all the nutritive values, amino acids, vitamins, especially B group and growth factors. It contains low salt and is recommended for microbiological media and for mass cultivation of various microorganisms.

Quality Control

Appearance

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

Solubility

Freely soluble in distilled/ purified water, insoluble in alcohol.

Clarity

2% w/v aqueous solution remains clear and neutral 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 : ≤ 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 : ≤ 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

Test for coagulable protein

As per method specified in USP 37,NF32.No formation of precipitate

Cultural response

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

Cultural Response

Organism

Cultural response

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	$\geq 10.50\%$
Amino Nitrogen	$\geq 4.50\%$
Sodium chloride	$\leq 5.0\%$
Loss on drying	$\leq 6.0\%$
Residue on ignition	$\leq 15\%$

Storage and Shelf Life

Store below 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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