

Meat Extract (i23639)

Used as a nutritional foundation in microbiological culture media to promote the optimal growth of fastidious microorganisms.

Industry: Fermentation / Ingredients for culture media

Principles & Uses

Meat Extract Powder, is an excellent choice for fostering the growth of fastidious microorganisms. This versatile powder easily dissolves in distilled water, forming a yellowish-brown solution that retains its clarity even after autoclaving. Meat extract powder is ideal for general-purpose and diagnostic media preparations.

Meat extract, derived from meticulously selected animal tissues devoid of fat and sinew, undergoes a gentle proteolytic digestion using pancreatin before extraction. It's typically employed in culture media at concentrations ranging from 0.3% to 1.0%, with variations based on specific nutritional requirements. Meat extract is particularly well-suited for cultivating fastidious microorganisms, including lactic acid bacteria and anaerobes, and finds recommendations in standard methods for various applications. Its composition comprises mixtures of peptides, amino acids, nucleotide fractions, organic acids, minerals, and select vitamins.

Chemical Characteristics

Humidity	3.5%
pH (Sol, 2%)	7.2 %
Total Nitrogen. (TN)	12.3%
Ammonia Nitrogen (AN)	4.7%
AN/TN relationship	38.2%

Quality Control

Dehydrated Appearance: Yellow to dark-yellow, homogenous, free flowing powder, having Characteristic odor but not putrescent.

Solubility: Freely soluble in distilled/purified water, insoluble in alcohol and ether.

Solution Appearance (1X): Yellow, dark yellow and clear.

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. pH at 25 °C: 6.0- 8.50

Test for pathogens

<i>E. coli</i>	Negative in 10 gr
<i>Salmonella spp.</i>	Negative in 10 gr
<i>Pseudomonas aeruginosa</i>	Negative in 10 gr
<i>Staphylococcus aureus</i>	Negative in 10 gr
<i>C. albicans</i>	Negative in 10 gr
<i>Clostridia</i>	Negative in 10 gr

Cultural Response

The cultural response was assessed by preparing culture medium with the inclusion of Meat Extract as an ingredient, followed by incubation at 35-37°C for 18-24 hours.

Organism (ATCC*)	Recovery
<i>Escherichia coli</i> (25922)	Good to excellent
<i>Bacillus subtilis</i> (6633)	Luxuriant
<i>Saccharomyces cerevisiae</i> (9080)	Luxuriant

Storage

Keep container tightly closed at 2-30 °C.