

Yeast Extract Powder
Yeast Extract Powder Type I
Yeast Extract Powder Type II

Intended Use

Yeast Extract is used in the preparation of culture media for the cultivation of a wide variety of microorganisms.

Summary and Principle

Yeast Extract Powder is prepared by drying yeast cells (*Saccharomyces*) extract specially grown for this purpose. It is a rich source of amino nitrogen. It provides vitamins, nitrogen, amino acids and carbon required for bacterial growth. It is used extensively for many non-animal formulations of bacterial, fungal, mammalian and insect cell culture.

Storage and Stability

Store dehydrated medium below 30°C in tightly closed container. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Note: TSE/BSE certificate is available on request.

Directions

Refer to the final concentration in the formula of the medium being prepared.

Quality Control

Test	Specifications		
	Yeast Extract Powder	Yeast Extract Powder Type I	Yeast Extract Powder Type II
Appearance	Light yellow / yellowish brown coloured powder	Light yellow / yellowish brown coloured powder	Light yellow / yellowish brown coloured powder
Solubility	Completely soluble in water	Completely soluble in water	Completely soluble in water
Colour and Clarity of 1% w/v aqueous solution after autoclaving at 15 psi / 15 min	Light yellow coloured, clear solution	Light yellow coloured, clear solution	Light yellow coloured, clear solution
pH after autoclaving	5.5 ± 1.5	5.5 ± 1.5	5.5 ± 1.5
Ash Content	Not More Than 20%	Not More Than 20%	Not More Than 20%
Loss on Drying (Moisture Content)	Not More Than 5%	Not More Than 5%	Not More Than 5%
α – Amino Nitrogen Content	Not Less Than 2.5%	Not Less Than 4%	Not Less Than 2.5%
Total Nitrogen Content	Not Less Than 7%	Not Less Than 10%	Not Less Than 7%
Total Microbial Count	Less than 5000 cfu/g	Less than 5000 cfu/g	Less than 5000 cfu/g
<i>E. coli</i>	Absent	Absent	Absent
<i>Salmonella</i>	Absent	Absent	Absent
<i>Pseudomonas aeruginosa</i>	Absent	Absent	Absent
<i>Staphylococcus aureus</i>	Absent	Absent	Absent

Cultural Response

Cultural characteristics observed after an incubation of 18-24 hours at 30°C-35°C for bacteria and 2-5 days for fungi at 20°C-25°C.

Organism (ATCC)	Growth
<i>Staphylococcus aureus</i> (6538)	Good
<i>Escherichia coli</i> (8739)	Good
<i>Pseudomonas aeruginosa</i> (9027)	Good
<i>Streptococcus pyogenes</i> (19615)	Good
<i>Candida albicans</i> (10231)	Good
<i>Aspergillus brasiliensis</i> (16404)	Good

Note: Growth for *Aspergillus brasiliensis* was observed after 72 hours at 20°C-25°C for quantitative test and the same is carried out for qualitative test and confirmed characteristic growth (White mycelial growth with black spores) after 4-5 days.

Typical Analysis

NaCl (%)	0.2	Isoleucine (% Free)	2.5
Calcium (µg/g)	230	Isoleucine (% Total)	4.7
Magnesium (µg/g)	799	Leucine (% Free)	4.0
Potassium (µg/g)	58013	Leucine (% Total)	6.2
Sodium (µg/g)	1003	Lysine (% Free)	2.7
Chloride (%)	0.07	Lysine (% Total)	4.9
Sulfate (%)	0.65	Methionine (% Free)	0.9
Phosphate (%)	3.73	Methionine (% Total)	1.1
Alanine (% Free)	5.7	Phenylalanine (% Free)	2.7
Alanine (% Total)	6.2	Phenylalanine (% Total)	4.4
Arginine (% Free)	2.0	Proline (% Free)	1.3
Arginine (% Total)	3.0	Proline (% Total)	2.3
Asparagine (% Free)	1.0	Serine (% Free)	1.3
Aspartic acid (% Free)	2.2	Serine (% Total)	1.9
Aspartic acid (% Total)	5.9	Threonine (% Free)	1.7
Cystine (% Free)	0.2	Threonine (% Total)	1.8
Glutamic Acid (% Free)	7.3	Tryptophan (% Free)	0.7
Glutamic Acid (% Total)	11.1	Tyrosine (% Free)	0.9
Glutamine (% Free)	0.1	Tyrosine (% Total)	1.2
Glycine (% Free)	1.6	Valine (% Free)	3.0
Glycine (% Total)	3.3	Valine (% Total)	4.8
Histidine (% Free)	0.3		
Histidine (% Total)	1.4		

Reference

1. U.S. Food and Drug Administration. 2001. Bacteriological analytical manual, online. AOAC International, Gaithersburg, Md.
2. Downes and Ito (ed.). 2001. Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington, D.C.
3. Wehr and Frank (ed.). 2004. Standard methods for the examination of dairy products, 17th ed. American Public Health Association, Washington, D.C.
4. Data on file: Microexpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
202250150500	Yeast Extract Powder	500 g
202250152500	Yeast Extract Powder	2.5 k
202250159925	Yeast Extract Powder	25 k (Bag)
202250159825	Yeast Extract Powder	25 k (Drum)
202250160500	Yeast Extract Powder Type I	500 g
202250162500	Yeast Extract Powder Type I	2.5 k
202250169925	Yeast Extract Powder Type I	25 k (Bag)
202250169825	Yeast Extract Powder Type I	25 k (Drum)
202250170500	Yeast Extract Powder Type II	500 g
202250172500	Yeast Extract Powder Type II	2.5 k
202250179925	Yeast Extract Powder Type II	25 k (Bag)
202250179825	Yeast Extract Powder Type II	25 k (Drum)

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.
