

BEEF EXTRACT POWDER (7228)

Intended Use

Beef Extract Powder is a dehydrated extract of bovine tissue for use in preparing microbiological culture media.

Product Summary and Explanation

Beef Extract Powder is prepared and standardized for use in microbiological culture media, where it is generally used to replace infusion of meat. Culture media containing Beef Extract Powder are recommended for use in bacteriological examination of water, milk, and other materials, where uniform composition of media is important. Beef Extract Powder is relied upon for biochemical studies, particularly fermentation reactions because of its independence from fermentable substances. Several media containing Beef Extract Powder are recommended in standard methods for multiple application.¹⁻³

Principles of the Procedure

Beef Extract Powder provides nitrogen, amino acids, vitamins, and carbon. Beef Extract Powder is usually employed in concentrations of 0.3% in culture media. Concentrations may vary slightly according to the requirements of individual formulas, but do not often exceed 0.5%.

Precaution

1. For Laboratory Use.

Quality Control Specifications

Dehydrated Appearance: Powder is homogeneous, free-flowing and medium to dark tan.

Prepared Appearance (2% wt/vol): Prepared medium is clear, amber and may have a light precipitate.

Chemical Composition:

Total Nitrogen (TN):	11% – 14%
Ash:	≤ 19%
Loss on Drying:	≤ 5%
pH (2% solution):	7.0 ± 0.2

Microbiological Specifications:

Standard Plate Count:	<1000 CFU / g
Yeast and Mold Count:	< 100 CFU / g
<i>Salmonella</i> / 25 g:	Negative

Expected Cultural Response: Cultural response on 2% Peptone Agar at 35° C after 18 - 24 hours incubation.

Microorganism	Response
<i>Escherichia coli</i>	Good to excellent growth
<i>Staphylococcus aureus</i>	Poor to fair growth

Test Procedure

Refer to appropriate references for specific procedures using Beef Extract Powder.

Results

Refer to appropriate references for test results.

Storage

Store sealed bottle containing Beef Extract Powder at 2 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

Expiration

Refer to expiration date stamped on the container. Beef Extract Powder should be discarded if not free flowing, or if appearance has changed from original color. Expiry applies to Beef Extract Powder in its intact container when stored as directed.

Packaging

Beef Extract Powder	Code No.	7228A	500 g
		7228B	2 kg
		7228C	10 kg

References

1. **Eaton, A. D., L. S. Clesceri, and A. E. Greenberg (eds.).** 1995. Standard methods for the examination of water and wastewater, 19th ed. American Public Health Association, Washington, D.C.
2. **U.S. Food and Drug Administration.** 1995. Bacteriological analytical manual, 8thed. AOAC International, Gaithersburg, MD.
3. **Vanderzant, C., and D. F. Splittstoesser (eds.).** 1992. Compendium of methods for the microbiological examination of food, 3rd ed. American Public Health Association, Washington, D.C.

Technical Information

Contact Acumedia Manufacturers, Inc. for Technical Service or questions involving dehydrated culture media preparation or performance at (517)372-9200 or fax us at (517)372-2006.