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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 20886.1-2021

Replacing GB/T 20886-2007

Quality requirements for yeast products - Part 1: Yeast for food processing

酵母产品质量要求 第1部分：食品加工用酵母

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1 Scope

China's national quality requirements for the yeast used in food processing. It is Part 1 of GB/T 20886 and specifies the terms and definitions, the product classification, the requirements, the test methods, the inspection rules, and the marking, packaging, transport and storage of yeast for food processing, applying to its production, inspection and sale. Baker's yeast is unusual among food ingredients in that the product is alive, and what the buyer is paying for is not a composition but an activity. A bakery does not want yeast; it wants a predictable rate of gas production in a specific dough at a specific temperature, and two lots that are chemically identical can behave differently if one has been stored badly or was harvested at the wrong point in its growth. So the central requirement is the fermentation activity, measured under defined conditions, and the standard has to fix those conditions closely enough for a result to be comparable. Around it sit the properties that determine whether that activity survives to the point of use. The dry matter or moisture

content distinguishes the forms - compressed, active dry and instant dry yeast are all covered and are not interchangeable, since they differ in water content, in storage life, in whether they need rehydration and in how they are dosed. The viability and cell count, the sensory characteristics and the absence of contaminating organisms follow. And the microbiological and safety limits are here as for any food ingredient, with the additional point that a live culture must not carry a live contaminant. Storage and transport are specified as requirements rather than advice, because compressed yeast loses activity measurably within days at the wrong temperature. Issued on 31 December 2021 and in force since 1 July 2022, it replaces GB/T 20886-2007.

This document specifies the terms and definitions, product classification, requirements, test methods, inspection rules and marking, packaging, transportation and storage of yeast for food processing. This document applies to the production, inspection and sale of yeast for food processing, and does not apply to yeast produced for self-use.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the version corresponding to that date is applicable to this document; for undated references, the latest version (including all amendments) is applicable to this document.

GB/T 191, Packaging - Pictorial marking for handling of goods

GB/T 317, White granulated sugar

GB/T 601, Chemical reagent - Preparations of reference titration solutions

GB/T 602, Chemical reagent - Preparations of standard solutions for impurity

GB/T 603, Chemical reagent - Preparations of reagent solutions for use in test methods
GB/T 1355, Wheat flour

GB 4789.15-2016, National food safety standard - Food microbiological examination. Enumeration of moulds and yeasts

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 yeast for food processing Yeast foods or food ingredients that can be fermented to produce carbon dioxide, alcohol, or increase food flavor, nutrition, etc., which are made by using molasses or starchy raw materials as the main carbon source, adding nitrogen sources, phosphorus sources and other fermentation nutrients suitable for cell growth, inoculating yeast strains, and going through fermentation, culture, separation, filtration, drying and other processes.

3.2 baker's yeast Yeast for food processing - with fermentation activities - used in rice, noodles and other food processing.

3.3 brewing yeast brewer's yeast Yeast for food processing - used for fermentation of alcoholic beverages and alcohols such as liquor, beer, wine, yellow rice wine, fruit wine - that has the ability to produce alcohol by fermentation or produce the unique flavor required for wine.

3.4 edible yeast Yeast for food processing which can be used directly as food, or added to various foods as a food raw material to increase food flavor, nutrition and other functions.

3.5 instant dry yeast instant yeast instant dry yeast

4.1.1 Baker's yeast

4.1.1.1 Instant dry yeast According to the sugar tolerance, it is divided into low-sugar instant dry yeast and high- sugar (high sugar tolerant) instant dry yeast.

4.1.2 Brewing yeast

4.1.2.1 Instant dry yeast According to the tolerance to fermentation temperature, it is divided into room temperature instant dry yeast and high temperature resistant instant dry yeast.

4.2 Edible yeast

4.2.1 Active edible yeast.

4.2.2 Inactive edible yeast.

5 Requirements

5.1 Sensory requirements It shall meet the requirements of Table 1.

5.2 Physical and chemical requirements

5.2.1 Baker's yeast It shall be in accordance with Table 2.

5.2.2 Brewing yeast It shall be in accordance with Table 3.

5.2.3 Edible yeast It shall be in accordance with Table 4.

6 Test methods

6.1 General requirements The water used in this method, unless otherwise specified, shall comply with the requirements for Grade-III water in GB/T 6682-2008; all reagents used, unless otherwise specified, are analytical reagents. The standard titration solution,

6.2 Sensory requirements Take an appropriate amount of sample; put it in a colorless, clean, dry glass (or white porcelain plate); place it in a bright place; observe its form and color with the naked eye under natural light; smell its odor; check whether there are impurities visible with normal vision.

6.7 Cell viability Determine according to Appendix D.

6.8 Protein Determine according to method I of GB 5009.5-2016, taking the conversion coefficient F of 6.25.

6.9 Total ash Determine according to GB 5009.4.

6.10 Viable count Determine according to the yeast counting method in GB 4789.15-2016.

7 Test rules

7.1 Batching Products of the same raw materials, the same formula, the same process, which are continuously produced on the same production line and are of uniform quality are one batch.

7.3 Exit-factory inspection

7.3.1 Product shall be inspected batch by batch according to the provisions of this document before leaving the factory. Products can only leave the factory after the inspection meets the requirements of this document.

7.4 Type inspection

7.4.1 Type inspection items. all items specified in this document.

7.4.2 In general, type inspection shall be carried out at least once a year. Type inspection shall also be carried out in any of the following situations.

7.5 Determination rules

7.5.1 When all inspection items of the sampled products meet the requirements, determine that the batch of products conforms to this document.

8.1 Marking

8.2 Packaging Packaging containers shall be clean and undamaged and shall comply with relevant national regulations.

8.3 Transportation The means of transport shall be clean. Products shall not be mixed or transported with toxic, harmful, corrosive or odorous items, and shall be kept away from moisture, pressure and exposure to the sun. When loading and unloading, they shall be handled with care, and shall not be directly hooked and packaged.