

ICS 67.100.10

QB

**LIGHT INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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**Concentrated milk
(English Translation)**

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1 Scope

This Standard specifies the terms and definitions, requirements, test methods, inspection rules, marking, packaging, transportation and storage of concentrated milk.

This standard is applicable to full-cream, skimmed and partially-skimmed concentrated milk used as raw materials.

2 Normative References

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) are applicable to this document.

GB 2761 National Food Safety Standard - Fungi Toxins in Food

GB 2762 National Food Safety Standard - Maximum Levels of Contaminants in Foods

GB 5009.5 National Food Safety Standard - Determination of Protein in Foods

GB 5009.6 National Food Safety Standard - Determination of Fat in Foods

GB 5009.237 National Food Safety Standard - Determination of pH Value of Food

GB 5413.39 National Food Safety Standard - Determination of Nonfat Total Milk Solids in Milk and Milk Products

GB 7718 National Food Safety Standard - Standard for Nutrition Labelling of

Prepackaged Foods

GB 19301 National Food Safety Standard - Raw Milk

GB 19645 National Food Safety Standard - Pasteurized Milk

3 Terms and Definitions

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

4.6 Limits of microorganisms

Products using heat treatment process shall conform to the provisions of Table 3 in GB

19645. Products using cold treatment processes such as ultrafiltration or reverse osmosis, after being diluted in equal proportions according to concentration multiples, shall conform to the provisions of the microorganism limits specified in GB19301.

5.1 Sensory requirements

Liquid (semi-solid) concentrated milk: Take an appropriate amount of sample and place it in a 50mL beaker. Observe its color and structural state under natural light. Smell its odor. Rinse with warm water and taste it.

Solid concentrated milk: Take an appropriate amount of sample; place it in a clean, dry white porcelain dish; observe its color and appearance under natural light. Smell its odor. Rinse with warm water and taste it.

5.2 Protein

Test according to the method specified in GB 5009.5.

5.3 Fat

Test according to the method specified in GB 5009.6.

5.4 Non-fat milk solid

Test according to the method specified in GB 5413.39.

5.5 pH

5.5.1 Sample preparation

It shall be carried out according to the method of 5.5.2 ~ 5.5.4; and other test procedures shall be carried out according to the method specified in GB 5009.237.

5.5.2 Sampling

The samples received by the laboratory shall be representative and not damaged or changed during transportation and storage. Take representative samples.

5.5.3 Homogenized samples

For liquid or semi-solid samples stored at room temperature, use mechanical equipment (high-speed rotating cutter or food mixer with crushing function, etc.) to homogenize the sample. Take care to avoid the sample temperature exceeding 25°C.

For samples that are solid due to freezing, take (200 ± 5) g (accurate to 0.01g) of samples to be homogenized and thawed in the above mechanical equipment. Note that the entire homogenization and thawing process does not exceed 0.5h; put the sample in sealed containers to prevent deterioration and composition changes.

The sample shall be analyzed as soon as possible. For samples stored at room temperature, no more than 24h after homogenization; for samples stored frozen, no more than 1h after thawing and homogenization.

5.5.4 Heterogeneous samples

Select a representative pH test point among the samples, and continuous to operate according to the heterogeneous sample in GB 5009.237.

6.1 Group batch

The quality management department of the production enterprise determines the batch of products in accordance with the corresponding rules.

6.2 Random-sampling

Products are randomly sampled in batches.

For pre-packaged products, take 5 pieces of packaging samples. For large package products over 10kg, 500 mL (g) of products may be sub-packed from the 5 packaged samples that are respectively taken as the samples; and the total sampling amounts of samples shall be no less than 2500 mL (g).

For milk storage tank products, first start the mechanical stirring device to stir the milk storage tank for at least 5 minutes before sampling. For milk storage tanks that do not have mechanical stirring equipment, use a manual stirrer to probe into the bottom of the tank before sampling, and stir from bottom to top evenly. After the sample is thoroughly mixed, use a sampler such as a liquid milk bucket to sample from three points at the surface, middle and bottom. Mix the samples collected at three points into the container and mix them thoroughly; then use a sampling bottle to divide into three parts. The total amount of

each sample is no less than 3 times the test detection amount. The sampler shall comply with the relevant standards.

6.3 Exit-factory inspection

Before leaving the factory, the quality inspection department of the production enterprise shall inspect the products batch by batch according to the provisions of this

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