



National Standard of People's Republic of China

GB 25191-2010

National food safety standard

Modified milk

食品安全国家标准

调制乳

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DISCLAIMER: The English version is an unofficial translation of the original in Chinese for information and reference purposes only. In case of a discrepancy the Chinese original standard will prevail.

Foreword

This standard supersedes GB 19645-2005 Hygienic Standard for Pasteurized and Sterilized Milk and part of the indexes in GB5408.1-1999 Pasteurized milk and GB 5408.2-1999 Sterilized milk. Indexes in GB5408.1-1999 "Pasteurized milk" and GB 5408.2-1999 "Sterilized milk" which have been referred to in this standard should comply with this standard.

Comparing with GB 19645-2005, the main changes are as follows:

- Divide Hygienic Standard for Pasteurization Sterilization into three separate standards: Pasteurized Milk, Sterilized Milk and Modified Milk (this standard);

The superseded former versions are:

- GB 19645-2005

National Food Safety Standard

Modified milk

1. Scope

This Standard applies to whole, skimmed and partially skimmed modified milk.

2. Normative references

The normative references contain provisions which, through reference in this text, constitute provisions of this standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. For undated reference documents, the latest version (including all its amendments) is applicable to this standard.

3. Terms and definitions

3.1 Modified milk

Liquid products using more than 80% cow or goat milk or reconstituted milk as main ingredients, supplemented with other ingredients such as food additives or nutrition enhancers, produced through the process of proper disinfection and sterilization or similar heat treatment.

4. Technical requirements

4.1 Ingredient Requirements

4.1.1 Raw milk: should comply with GB 19301.

4.1.2 Other materials: should comply with the corresponding hygiene standards and related regulations.

4.2 Sensory requirements

Sensory Requirements should comply with Table 1.

Table 1 Sensory Requirements

Item	Requirements	Test methods
Color	Displays proper characteristic and color of modified milk.	Take appropriate amount of sample to 50mL beaker, observe the color and texture under natural light, smell and taste after rinsing mouth with warm water.
Taste and aroma	Proper characteristic taste and flavor of modified milk, without any abnormal odor	
Texture	Liquid with even texture, without any unusual coagulation or visible foreign matters, but residues corresponding to the ingredients added is allowed.	

4.3 Physical and chemical requirements

Physical and chemical requirements should comply with Table 2

Table 2 Physical and chemical requirements

Item	Requirements	Test method
Fat ^a /(g/100g) ≥	2.5	GB5413.3
Protein (g/100g) ≥	2.3	GB5009.5
^a Only applicable to whole milk products.		

4.4 Contaminant limit

Contaminant limit should comply with the requirements in GB 2762.

4.5 Mycotoxins limit

Mycotoxins limit should comply with the requirements in GB 2761.

4.6 Microbiological requirements

4.6.1 Modified milk manufactured through sterilization process should comply with the commercial sterility requirements, and be tested with the method in GB 4789.26.

4.6.2 Other modified milk should comply with the requirement in Table 3.

Table 3 Microbiological Limits

Item	Sampling plan ^a and requirements (if not specified, in CFU/g or CFU/ml)				Test method
	n	c	m	M	
Total plate count	5	2	50,000	100,000	GB4789.2
Coliforms	5	2	1	5	GB4789.3 Method 2
Staphylococcus aureus	5	0	0/25g(ml)	-	GB4789.10 Method 1
Salmonella	5	0	0/25g(ml)	-	GB4789.4
^a The analysis and treatment of samples should conform to GB4789.1 and GB 4789.18.					

4.7 Food additives and nutrition enhancers

4.7.1 The quality of food additives and nutrition enhancers should comply with relevant standards and regulations.

4.7.2 The use of food additives and nutrition enhancers should comply with GB 2760 and GB 14880.

5. Others

- 5.1 The product made from 100% milk powder as raw material should be labeled as “复原乳” or “复原奶” (reconstituted dairy or milk respectively) in the place adjacent to the product name. The product partly made from milk powder as raw material should be labeled as “contain ××% reconstituted milk”, in which “××%” is the percentage of milk powder accounting to total milk solid in modified milk.
- 5.2 “复原乳” or “复原奶” (reconstituted dairy or milk respectively) should be shown on the same main display page of the packaging with the product name. The characters should be distinguished, with the font size no smaller than that of the product name and no less than 1/5 of the height of the main display page.