



**National Standard of the People's Republic of China**

GB 25190—2010

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**National food safety standard  
Sterilized Milk**

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of the People's Republic of China

## Preface

This standard replaces GB 19645-2005 Hygiene Standard of Pasteurized, sterilized milk and the part index of GB 5408.2-1999 Sterilized milk. In case of the index involved in GB 5408.2-1999, this standard shall prevail.

In comparison with GB 19645-2005, the major changes of this standard are as follows:

- The Hygiene Standard of pasteurized milk and sterilized milk is divided into three standards named pasteurized milk, sterilized milk and modified milk, and this standard is sterilized milk.
- The description of scope is modified;
- Terms and definitions are specified;
- Sensory requirement is modified;
- The fat requirements for skimmed milk product and partial skimmed milk product are cancelled;
- The protein requirement for ovine milk is added;
- The limits of Acid value in physical-chemical requirements are changed to the range of value;
- Residues limits of veterinary drugs are cancelled;
- Residues limits of pesticides are cancelled;
- The limits of contaminants are directly cited from GB2762;
- The limits of mycotoxins are directly cited from GB2761;
- The requirement for food additive is cancelled;
- The requirement for labelling is modified;

This standard replaces all previous standards, those issued editions are:

- GB 19645-2005.

# National food safety standard

## Sterilized Milk

### 1. Scope

This standard applies to sterilized whole milk, skimmed milk and partial skimmed milk.

### 2. Normative reference

The following normative documents are absolutely necessarily for the application of this standard. For dated references, only the dated edition of the normative document is referred to apply. For undated references, the latest edition including all the modified notes of the normative document is referred to apply.

### 3. Terms and definitions

#### 3.1 Ultra high-temperature milk

Ultra high-temperature milk means the liquid products that using raw bovine (or goat) milk as the ingredient with the addition of reconstituted milk or not, at the condition of continuous flowing, are heated to at least 132°C and held for a very short time for sterilization, then formed with aseptic filling and others.

#### 3.2 Retort sterilized milk

Retort sterilized milk means the liquid product that using raw bovine (or goat) milk as the ingredient with the addition of reconstituted milk or not, with or without preheated, sterilized and so on after filling and sealing.

### 4. Technical requirements

#### 4.1 Raw material requirements

4.1.1 Raw milk: shall be in accordance with GB 19301.

4.1.2 Milk powder: shall be in accordance with GB 19644.

#### 4.2 Sensory requirements are specified in Table 1 as below.

Table1. Sensory requirement

Item	Requirement	Test method
Color	Ivory white or pale yellow.	Add moderate test sample into a 50ml
Taste and aroma	Natural milk aroma, no	

	abnormal flavour.	beaker, and observe the color, structure and appearance of the test sample with nature daylight. Smell and taste after gargling with warm water.
Structure and appearance	Well-proportioned liquid, no coagulation, no precipitate, no foreign matter by eyes	

#### 4.3 Physical-chemical requirements: are specified in Table 2 as below.

**Table 2 Physical-chemical requirements**

Item	Limits	Test method
Fat <sup>a</sup> /(g/100g) ≥	3.1	GB 5413.3
Protein/(g/100g)		
Bovine milk ≥	2.9	GB 5009.5
Ovine milk ≥	2.8	
Milk solids non fat /(g/100g) ≥	8.1	GB 5413.39
Acidity/(° T)		
Bovine milk	12~18	GB 5413.34
Ovine milk	6~13	
a: only applies to sterilized whole milk		

#### 4.4 Limits of contaminants

The limits of contaminants shall be in accordance with GB 2762.

#### 4.5 Limits of Mycotoxins:

The limits of Mycotoxins shall be in accordance with GB 2761.

#### 4.6 Microbiology requirements

The microbiology requirements shall be in accordance with commercial sterilization and the sample shall be tested by the method of GB/T 4789.26.

#### 5. Others

5.1 UHT milk only raw bovine (or ovine) milk as ingredient shall be marked "pure milk / dairy" in Chinese in the main display panel, closing to the position of product name. The font size of Chinese should be no less than which for product

name, and the font height should be no less than one-fifth of main display panel height.

5.2 The sterilized milk completely produced from milk powder shall be marked “reconstituted milk/dairy” in Chinese closing to the position of product name; the sterilized milk produced of raw bovine (or goat) partially added milk powder shall be marked “containing ××% reconstituted milk/dairy” in Chinese closing to the position of product name.

Note: “××%” means the mass percentage of added milk powder in total milk solids of sterilized milk.

5.3 “reconstituted milk” and product name should be marked on the same main display panel of container; the labelled “reconstituted milk” should be outstanding, with font size no less than which for the product name, and font height no less than one-fifth of main display panel.