



National Standard of the People's Republic of China

GB 25190-2010

National Food Safety Standard
Sterilized Milk

食品安全国家标准

灭菌乳

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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 GB 5408.2-1999 Sterilized Milk, indexes in GB 5408.2-1999 Sterilized Milk which have been referred to in this standard should comply with this standard.

Comparing with GB 19645-2005, major changes in this standard are as follows:

- Divide Hygienic Standard for Pasteurization Sterilization into three separate standards: Pasteurized Milk, Sterilized Milk (this standard) and Modified Milk ;
- Description of Scope is modified;
- Terms and Definition is defined;
- Sensory Requirements are modified;
- Fat requirements for skimmed and partially skimmed products are removed;
- Protein requirements for goat milk are added;
- Acidity requirements listed in “Physical-Chemical Index” are changed to range of value;
- Veterinary drug residue index is removed;
- Pesticide residue index is removed;
- Contaminant limits will directly refer to GB2762;
- Mycotoxin limits will directly refer to GB2761;
- Representation of microorganism index is revised;
- Requirements for food additives are removed;
- Labeling requirements are amended.

The superseded former versions are:

- GB 19645-2005

National food safety standard

Sterilized Milk

1. Scope

This standard applies to whole, skimmed and partially skimmed sterilized 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 Ultra high-temperature milk

Liquid products using raw (goat) milk as raw material, adding or not adding reconstituted milk, heating to at least 132 °C under the condition of continuous flow and maintaining for a short time for sterilization, and finally filling through aseptic condition.

3.2 Retort sterilized milk

Liquid products using raw (goat) milk as raw material, adding or not adding reconstituted milk, whether or not conducting preheating treatment, implementing sterilization after filling and sealing.

4. Technical requirements

4.1 Ingredient Requirements

4.1.1 Raw milk: should comply with GB19301.

4.1.2 Milk powder: should comply with GB19644.

4.2 Sensory requirements: should comply with Table 1.**Table 1 Sensory requirements**

Item	Requirement	Testing method
Color	Milky white or light yellow	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	Characteristic and flavor of milk without any abnormal odor	
Texture and Appearance	Liquid with even texture, without any unusual coagulation or visible foreign matters	

4.3 Physicochemical requirements: Should comply with Table 2.**Table 2 Physicochemical requirements**

Items	Index	Testing method
Fat a/(g/100g) ≥	3.1	GB 5413.3
Protein/(g/100g)		
Cow milk ≥	2.9	GB 5009.5
Goat milk ≥	2.8	
Milk Solid Non-Fat /(g/100g) ≥	8.1	GB 5413.39
Acidity /(°T)		
Cow milk	12-18	GB 5413.34
Goat milk	6-13	
a Only applicable to whole sterilized milk		

4.4 Contaminant Limits: Should comply with the requirements in GB 2762.**4.5 Mycotoxin Limits: Should comply with the requirements in GB 2761.****4.6 Microorganism Requirements: should comply with the commercial sterility requirements, and be tested with the method in GB 4789.26.**

5 Others

5.1 The ultra-high-temperature milk which only uses fresh cattle (sheep) milk as raw material should be labeled with "纯牛（羊）奶" or "纯牛（羊）乳" (pure milk) on the main packaging surface with the characters not smaller than the product name font size and not less than 1/5 of the main surface height which is adjacent to the product name.

5.2 The sterilized milk fully made of milk powder should be labeled with "复原乳" or "复原奶" (reconstituted dairy or milk respectively) on the place adjacent to the product name. The sterilized milk with milk powder added into it should be labeled with "XX % reconstituted milk" on the place adjacent to the product name.

Note: "XX %" refers to the mass fraction of the added powder to the total milk solids in sterilized milk.

5.3 "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.