



National Food Safety Standard of the People's Republic of China

GB 19302-2010

National Food Safety Standard Fermented Milk

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Preface

The Standard corresponds to Codex Stan 243-2003 (Revision 2008) Codex Standard for Fermented Milk, the Standard and Codex Stan 243-2003 (Revision 2008) are not equivalent one another in terms of consistency.

The Standard substitutes the GB 19302-2003 “Hygienic Standard for Yoghurt” and No.1 modification notice, and some indicators in the GB 2746-1999 “Yoghurt”.

Compared with the GB 19302-2003, main changes are following:

- The title of the Standard is modified to “Fermented milk”.
- The description the scope is revised.
- The terms and definitions are defined.
- The sensory indicator is revised.
- The requirement of fat content of skimmed and partly skimmed products is deleted.
- The non-fat solid indicator of flavored fermented milk is deleted.
- The requirement of total solid content is deleted.
- The limit of pollutant is directly quoted from GB 2762.
- The limit of fungimycin is directly quoted from GB 2761.
- The representation of microorganism indicator is revised.
- The requirement of shigella in pathogens is deleted.
- The requirement of lactic acid bacteria in products is revised.
- The requirement of nutrition fortifier is added.

The replaced former editions are:

- GB 19302-2003.

Fermented Milk

1. Scope

The Standard is applicable to whole fat, skimmed and partly skimmed fermented milk.

2. Normalized References

The documents referred in the standard are requisite for the application of the standard.

For dated references, only the version dated is applicable to the standard.

For undated references, the latest version including all modification notices are applicable to the standard.

3. Terms and Definitions

3.1 Fermented milk

A product made of raw cow (goat) milk or milk powder by decreasing pH value after pasteurization and fermentation.

3.1.1 Yoghurt

A product made of raw cow (goat) milk or milk powder through the process of pasteurization and fermentation by inoculating streptococcus thermophilus and lactobacillus bulgaricus (Lactobacillus delbrueckii subsp. bulgaricus).

3.2 Flavored fermented milk

A product made of over 80% of raw cow (goat) milk or milk powder and adding other materials by decreasing pH value after pasteurization and fermentation, then adding or no adding food additives, nutrition fortifiers, fruits & vegetables and cereals etc. before or after fermentation.

3.2.1 Flavored yoghurt

A product made of over 80% of raw cow (goat) milk or milk powder and adding other materials through the process of pasteurization and inoculation of streptococcus thermophilus and lactobacillus bulgaricus (Lactobacillus delbrueckii subsp. bulgaricus), then adding or no adding food additives, nutrition fortifiers, fruits & vegetables and cereals etc. before or after fermentation.

4. Requirements of indicators

4.1 Requirements for raw materials

4.1.1 Raw milk: be subject to GB 19301.

4.1.2 Other raw materials: be subject to relevant safety standards and provisions.

4.1.3 Fermentation strains: lactobacillus bulgaricus (Lactobacillus delbrueckii subsp. bulgaricus), streptococcus thermophilus or other strains approved by the Health Administrative Department of the State Council.

4.2 Sensory indicators: shall conform to the provisions in Table 1.

Table 1 Sensory requirements

Items	requirement		Analytical method
	Fermented milk	Flavored ferment milk	
Color	Consistency in color, presenting in white or yellowish.	Presenting its color corresponding to added ingredients	put proper quality of samples into 50ml beaker, and observe the color and texture under natural light.
Taste and flavor	Specific taste and flavor of fermented milk.	Presenting its taste and color corresponding to added ingredients	
Texture	Exquisite texture, homogeneous, light whey separation allowed; Flavored fermented milk presents its specific texture corresponding to added ingredients,		

4.3 Physical-chemical indicators: shall conform to the provisions in Table 2.

Table 2 Physical-chemical indicators

Items	Indicators		Analytical methods
	Fermented milk	Flavored fermented milk	
Fat ^a /(g/100g) >=	3.1	2.5	GB5413.3
SNF/(g/100g) >=	8.1	-	GB5413.39
Protein/(g/100g) >=	2.9	2.3	GB5009.5
Acidity/(° T) >=	70.0		GB5413.34
^a only applicable to whole milk products.			

4.4 The limit of pollutants: shall conform to the provisions of GB 2762.

4.5 The limit of fungimycin: shall conform to the provisions of the GB 2761.

4.6 The limit of microorganism: shall conform to the provisions of Table 3.

Table 3 the limit of microorganism

Items	Sampling ^a and limit(CFU/g or CFU/ml)				Analytical methods
	n	c	m	M	
Coliform	5	2	1	5	GB4789.3 Plate count
Staphylococcus aureus	5	0	0/25g (ml)	-	GB4789.10 Qualitative
Salmonella	5	0	0/25g (ml)	-	GB4789.4
Yeast <=	100				GB4789.15
Mould <=	30				
^a Analysis and treatment of samples apply to GB4789.1 and GB4789.18.					

4.7 Lactic acid bacteria count: shall conform to the provisions in Table 4.

Table 4 Lactic acid bacteria count

Items	Limit [CFU/g(ml)]	Analytical method
Lactic acid bacteria count ^a >=	1x10 ⁶	GB4789.35
^a no requirement of lactic acid bacteria for heat treated products after fermentation.		

4.8 Food additives and Nutrition fortifiers

4.8.1 The quality of food additives and nutrition fortifiers shall conform to the related safety standard and relevant regulations.

4.8.2 The application/ use of food additives and nutrition fortifiers shall conform to the GB2760 and the GB14880.

5. Others

5.1 Heat treated products after fermentation shall label 'xx heat treated fermented milk', 'xx heat treated flavored fermented milk', 'xx heat treated yoghurt' or 'heat treated flavored yoghurt'.

5.2 Products fully made of milk powder shall be identified with 'reconstituted milk' at location adjacent to the product name.

Products made of raw cow (goat) milk added with a part of milk powder shall be identified with 'contains xx% reconstituted milk' at location adjacent to the product name.

Note: 'xx%' designates a mass fraction of dry milk added in the full milk solid of the product.

5.3 'Reconstituted milk' with its product name shall be identified on the same main displaying plane of packed containers. The 'reconstituted milk' for identification shall be boldly indicated with their font size no less than that of the product name and their font height no less than one fifth of the main displaying plane.