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Voluntary - Public

Date: 11/30/2009

GAIN Report Number: CH9093

China - Peoples Republic of

Post: Beijing

National Dairy Standard - Pasteurized Milk

Report Categories:

FAIRS Subject Report

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Report Highlights:

On November 20, 2009, China notified the WTO of "National Food Safety Standard of the People's Republic of China for Pasteurized Milk" as SPS/N/CHN/126. This standard relates to the quality specifications of pasteurized milk. The date for submission of final comments to the WTO is January 1, 2010. The proposed date of entry into force has not been specified.

Executive Summary:

On November 20, 2009, China notified the WTO of "National Food Safety Standard of the People's Republic of China for Pasteurized Milk" as SPS/N/CHN/126. This standard relates to the quality specifications of pasteurized milk. The date for submission of final comments to the WTO is January 1, 2010. The proposed date of entry into force has not been specified.

According to the WTO notification, "This standard applies to the production, circulation, supervision

and management of pasteurized fresh milk. It specifies the terms and definitions, technical requirements, as well as the requirements of production process, packaging, labeling, storage, transportation and testing method for pasteurized fresh milk.”

Thanks go to the consortium of industry and 3rd country Embassies in Beijing for their assistance in translating and reviewing this standard.

This report contains an UNOFFICIAL translation of National Standard on Pasteurized Milk.

General Information:

BEGIN TRANSLATION

ICS 67.100

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

GB XXXX-XXXX

Substitute GB19645-2005, GB5408.1-1999

Pasteurized Milk

(Draft for Comment)

Issued on XXXX-XX-XX

Implemented on XXXX-XX-XX

Published by Ministry of Health of the People’s Republic of China

Preface

The Standard substitutes the safety indicators in the GB 19645-2005 “Hygienic Standard for Pasteurized and Sterilized Milk” and the GB 5408.1-1999 “Pasteurized Milk”.

Compared with the GB 19645-2005, main changes are made to the Standard as follows:

- pasteurized and sterilized milk is divided into three standards, and those Standards are named as “Pasteurized Milk”;
- the limit of acidity as required in physical and chemical indices is modified into a range of acidity;
- the limit of pollutant is directly quoted from GB 2762;

- the limit of fungimycin is directly quoted from GB 2761;
- the representation of microorganism index is modified;
- the rules on identification is modified;
- “Pasteurized milk shall be transported in a refrigeration car” is changed to “the product shall be refrigerated and transported under 2-6°C”.

The Standard is proposed and put under centralized management by the Ministry of Health of the People’s Republic of China.

The replaced former editions are:

- GB/T 5408-1985, GB 5408.1-1999;
- GB 19645-2005.

Pasteurized Milk

1. Scope

The Standard stipulates the terminology and definition, technical requirements, production and processing, packing, identification, storage and transport, requirements of inspection method for pasteurized milk.

The Standard is applicable to the production, circulation, supervision and management of pasteurized milk.

2. Normative References

The clauses of the following reference are incorporated into the Standard by reference. For dated references, subsequent amendments to (exclude mistakes), or revisions of any of these publications do not apply. However, the parties who conclude an agreement according to the Standard are encouraged to discuss whether the latest edition can be used or not. For undated references, the latest edition of the normative document referred to applies.

- | | |
|------------|---|
| GB 2761 | Limit of fungimycin in foods |
| GB 2762 | Limit of pollutants in foods |
| GB 4789.2 | Microbiological examination in foods – Determination of total plate count |
| GB 4789.3 | Microbiological examination in foods – Counting for coliforms |
| GB 4789.4 | Microbiological examination in foods – salmonella |
| GB 4789.10 | Microbiological examination in foods – Staphylococcus aureus |
| GB 4789.18 | Microbiological examination in foods – milk and dairy products |

GB XXXX	Determination of fat in infant foods and dairy products
GB XXXX	Determination of acidity in milk and dairy products
GB 5009.5	Determination of protein in foods
GB 7718	General standard for of pre-packaged food labels
GB 12693	Good manufacturing practice for dairy enterprises
GB 19301	Raw milk

3. Terminology and Definition

The following terms and definitions are adopted in the Standard.

3.1

Pasteurized milk

A kind of liquid product made of raw milk or goat milk through such process as pasteurization.

4. Technical Requirements

4.1 Requirements for raw materials

Raw milk shall meet the requirements of GB 19301.

4.2 Sensory indices

It is white or yellowish well-distributed liquid, characteristic of mastic flavor, without abnormal odor, clot or precipitates.

4.3 Physiochemical indices

Be subject to the requirements in Table 1.

Table 1 Physiochemical indices

Item	Index
Fat ^a /(g/100g) ≥	3.1
Protein/(g/100g)	
Cow milk ≥	2.9
Goat milk ≥	2.8
Non-fat solids/(g/100g) ≥	8.1
Acidity/(°T)	
Cow milk	12-18
Goat milk	6-13
^a Not applicable to skimmed or partially skimmed pasteurized milk.	

4.4 Limit of pollutants

Be subject to the stipulations of GB 2762.

4.5 Limit of fungimycin

Be subject to the stipulations of GB 2761.

4.6 Index of microorganism

Be subject to the requirements in Table 2.

Table 2 Index of microorganisms

Item	Plan of sampling and limit
Total plate count	n=5, c=2, m=50000 cfu/mL, M=100000 cfu/mL
Coliform	n=5, c=2, m=1 cfu/mL, M=5 cfu/mL
Staphylococcus aureus	n=5, c=0, m=0 cfu/25mL
Salmonella	n=5, c=0, m=0 cfu/25mL

5. Production and processing

Be subject to the stipulations of GB 12693.

6. Packaging

The materials of packaging containers shall conform to relevant standards and stipulations.

7. Identification

7.1 Be subject to the stipulations of GB 7718 and relevant laws and regulations of the Nation.

7.2 The Chinese characters “鲜牛奶 / 乳”, whose font size is not smaller than that of the product name and whose line height is no less than one fifth of the main displaying plane, shall be marked at the location adjacent to the product name on the main displaying plane of the package.

8. Storage and Transportation

8.1 Storage

The products shall be kept in refrigerated storage under 2°C~6°C. The products can not be stored with toxic, harmful, odorous, volatile, and corrosive substances.

8.2 Transportation

The product shall be transported with refrigeration under 2-6°C. It shall be kept away from the direct sunlight and rain during transportation. The product can not be mix transported with toxic, harmful, odorous substances or other substances that may affect the product quality.

9. Method of Inspection

9.1 Sensory indices

It is white or yellowish, colloidal liquid, without precipitates, abnormal odor, clot or impurities. It has characteristic mastic flavor of pasteurized milk.

9.2 Physicochemical indices

9.2.1 Fat: determined with a method specified in GB XXXX.

9.2.2 Protein: determined with a method specified in GB 5009.5.

9.2.3 Non-fat solids

9.2.3.1 Method I

Add 20g refined marine sand into a glass dish with a diameter of 5cm-7cm, dry it at 95-105°C for 2h, and then cool it at a desiccator for 0.5h before weighing it, then repeatedly dry it until its weight comes constant. Add 5.0mL sample into a constant container, weigh it before putting it on a water bath to evaporate it dry, followed by wiping out water spot outside the dish, and then drying at 95-105°C for 3h, cooled at a desiccator for 0.5 before weighing it and dried again at 95-105°C for 1h, followed by weighing after it cooled until the difference in quantity between two weights obtained is no less than 1.0mg. The content of solids in the sample is then calculated in accordance with Formula (1), while the content of non-fat solids in accordance with Formula (2):

$$X = \frac{m_1 - m_2}{m_3 - m_2} \times 100 \dots\dots\dots (1)$$

in which,

X - the content of total solids in sample (g/100g);

m₁ - the quantity of dish, sand and dried sample (g);

m₂ - the quantity of dish and sand (g);

m₃ - the quantity of dish, sand and sample (g).

$$X = X_1 - X_2 \dots\dots\dots (2)$$

in which,

X - the content of non-fat solids in sample (g/100g);

X₁ - the content of total solids in sample (g/100g);

X₂ - the content of fat in sample (g/100g).

Two significant figures are retained in the calculation; the absolute difference of two independently measured results under the same condition shall not exceed 5% of the arithmetic mean.

9.2.3.2 Method II

The content of total solids is calculated from the readings measured with a milk gauge and the content of fat based on Formulas (1) and (2).

$$X_3 = 0.25X_1 + 1.2X_2 + 0.14 \dots \dots \dots (3)$$

in which,

X - the content of total solids in sample (g/100g);

X₁ - the reading on the milk gauge;

X₂ - the content of fat in sample (g/100g).

When using a 20°C/4°C milk gauge, 2° must be added to the readings measured before calculated in accordance with Formula (3). The content of non-fat solid in sample is calculated in accordance with Formula (2).

9.2.4 Acidity

The acidity is measured in accordance with GB XXXX.

9.3 Microorganism index

The devices and materials for inspection of microorganism index, sampling plan and handling of inspected samples shall be subject to GB 4789.18.

9.3.1 Total plate count: inspected in accordance with GB 4789.2.

9.3.2 Coliform: inspected in accordance with GB 4789.3.

9.3.3 Salmonella: inspected in accordance with GB 4789.4.

9.3.4 Staphylococcus aureus: inspected in accordance with GB 4789.10.