



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

GB5420-2010

National Food Safety Standard

Cheese

Issued on 2010-03-26

Implemented on 2010-12-01

Published by **Ministry of Health of the People's Republic of China**

Preface

The Standard corresponds to Codex Stan 283-1978 (Revision1999, Amendment 2006, 2008) Codex General Standard for Cheese, the Standard and Codex Stan 283-1978 (Revision1999, Amendment 2006, 2008) are not equivalent one another in terms of consistency.

The Standard substitutes the GB 5420-2003 “Hygienic Standard for Cheese” and some indicators in GB/T 21375-2008 “Cheese”.

Compared with GB 5420-2003, main changes are following:

- The title of the Standard is changed “Cheese”.
- The description of scope is revised.
- Terms and definitions are added.
- The indicators of physical-chemical are deleted.
- The limit of pollutant is directly quoted from GB 2762.
- The limit of funginycin is directly quoted from GB2761.
- The indicator of listeria monocytogenes is added into the limit of microorganism.
- The requirement of nutrition fortifier is added.

The replaced former editions are:

- GB 5420-1985, GB 5420-2003.

National Food Safety Standard

Cheese

1. Scope

The Standard is applicable to ripened cheese, mould ripened cheese and unripened cheese.

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 Cheese

Cheese refers to a kind of dairy product in a ripened or unripened, soft, semi-rigid, rigid or especially rigid form, possibly having a coat, whose ratio of whey protein/casein does not exceed the corresponding ratio in milk. Cheese is prepared with a method as follows:

(a) milk, skimmed milk, partly skimmed milk, ripened cream, whey, one or more proteins in buttermilk is curdled or partially curdled under the action of rennet or other adequate milk coagulants to drain a part of whey from the curd. The preparation is a process of concentration of milk protein (particularly of the portion of casein), namely, the content of protein in cheese is significantly higher than that in raw material.

(b) the process includes curdling of proteins in milk and/or dairy products, it then gives physical and chemical characters of the finished products or similar to that described in step (a).

3.1.1 Ripened cheese

The ripened cheese refers to the coagulation in the process, yet not directly edible immediately after prepared, which must be subject to biochemical and physical processes after stored for a certain period of time at adequate temperature to produce cheese having the cheese flavor.

3.1.2 Mold ripened cheese

Mold ripened cheese refers to the cheese which is ripened by promotion with growth of the mold through interior of cheese and/or surface of the cheese.

3.1.3 Unripened cheese

Unripened cheese (including fresh cheese) refers to the cheese directly edible immediately after being prepared.

4. Technical Requirements

4.1 Requirements for raw materials

4.1.1 Raw milk: be subject to the requirements of GB 19301.

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

4.2 Sensory indicators: shall conform to the provisions in Table1.

Table 1 Sensory indicators

| Items | Requirements | Analytical method |
|------------------|---|--|
| Color | It possesses its color that this kind of products should have. | put proper quality of samples into 50ml beaker, and observe the color and texture under natural light. Smell the flavor, and gargle with warm water then taste. |
| Taste and flavor | It possesses its taste and flavor that the products should have. | |
| Texture | Exquisite texture, consistency in texture, having its hardness of this kind of products | |

4.3 The limit of pollutants: shall conform to the GB2762.

4.4 The limit of fungimycin: shall conform to the GB2761.

4.5 The limit of of microorganism: shall conform to the provisions in Table2.

Table 2 Limit of microorganism

| Items | Sampling ^a and limit(CFU/g or CFU/ml) | | | | Analytical methods |
|---|--|---|-------|------|-----------------------|
| | n | c | m | M | |
| Coliform | 5 | 2 | 100 | 1000 | GB4789.3 Plate count |
| Staphylococcus aureus | 5 | 2 | 100 | 1000 | GB4789.10 Plate count |
| Salmonella | 5 | 0 | 0/25g | - | GB4789.4 |
| Listeria monocytogenes | 5 | 0 | 0/25g | - | GB4789.30 |
| Yeast ^b <= | 50 | | | | GB4789.15 |
| Mould ^b <= | 50 | | | | |
| ^a Analysis and treatment of samples apply to GB4789.1 and GB4789.18. | | | | | |
| ^b no applicable to Mould repined cheese. | | | | | |

4.6 Food Additives and Nutrition Fortifiers

4.6.1 The quality of food additives and nutrition fortifiers shall conform to related safety standards and relevant regulations.

4.6.2 The application/ use of food additives and nutrition fortifiers shall conform to the GB2670 and GB14880.