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

GB19646-2010

National food safety standard
Cream, Butter and Anhydrous Milk Fat

Issued on 26-03-2010
Implemented on 12-01-2010

Issued by the Ministry of Health
of the People’s Republic of China
Preface


In comparison with GB 19646-2005, the major changes are as follows:

— The name of standard is changed to “Cream, Butter and Anhydrous Milk Fat”;
— The scope is modified;
— “terms and definitions” is added
— The sensory requirement is modified;
— The acidity requirement for cream is added;
— The requirement of milk solids non fat is added;
— The limits of contaminants is directly cited from the requirement of GB 2762;
— The limits of mycotoxins is directly cited from the requirement of GB 2761;
— The expression way of requirement for microbiology is modified;
— The requirement for nutrition enhancer is added.

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

— GB 19646-2005.
National food safety standard
Cream, Butter and Anhydrous Milk Fat

1. Scope
This standard applies to cream, butter and anhydrous milk fat.

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 referred to applies. For undated references, the latest edition including all the modified notes of the normative document referred to applies.

3. Terms and definitions
3.1 Cream
The products with milk fat content of 10.0% to 80.0%, which is made from milk fat-containing part separated from milk, with or without addition of other ingredients, food additives and nutrient fortifier.

3.2 Butter
The products with milk fat content of not less than 80.0%, which is made from milk and (or) cream (fermented or non-fermented), with or without addition of other ingredients, food additives and nutrient fortifier.

3.3 Anhydrous Milk Fat
The products with milk fat content of not less than 99.8%, which is made from milk and (or) butter and cream (fermented or non-fermented), with or without addition of food additives and nutrient fortifier.

4. Technical Requirements
4.1 Raw material requirements
4.1.1 Fresh milk: should comply with GB 19301
4.1.2 Other raw materials: should comply with the corresponding safety standard and relevant regulations.

4.2 Sensory requirements
Sensory requirements shall be in accordance with table 1.

Table 1 sensory requirements
4.3 Physical-chemical requirements

Physical-chemical requirements should comply with Table 2.

Table 2. Physical-chemical requirements

<table>
<thead>
<tr>
<th>Item</th>
<th>Limits</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cream</td>
<td>Butter</td>
</tr>
<tr>
<td>Moisture /(%) ≤</td>
<td>—</td>
<td>16.0</td>
</tr>
<tr>
<td>Milk fat/ (%) ≥</td>
<td>10.0</td>
<td>80.0</td>
</tr>
<tr>
<td>Acidity a/ (°T) ≤</td>
<td>30.0</td>
<td>20.0</td>
</tr>
<tr>
<td>MSNF b/ (%) ≤</td>
<td>—</td>
<td>2.0</td>
</tr>
</tbody>
</table>

a: fat content in anhydrous butter (%)=100%-moisture content(%)
b: not apply to the product with fermented cream as ingredient.
c: MSNF=100%-fat content(%) - moisture content(%) (for salted butter, should minus salt)

4.4 Limits of contaminants
Limits of contaminants should comply with GB 2762.

**4.5 Limits of Mycotoxins**

Limits of mycotoxins should comply with GB 2761.

**4.6 Microbiology requirements**

4.6.1 Cream products produced from canning process or UHT sterilization process should meet the commercial sterility, and should be tested by the method regulated by GB/T 4789.26.

4.6.2 Other products should comply with Table 3.

<table>
<thead>
<tr>
<th>Item</th>
<th>Sampling programs a and limits (if not appointed, described as CFU/g or CFU/ml)</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>c</td>
</tr>
<tr>
<td>Aerobic Plate Count b</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Coliforms</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Staphylococcus aureus</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Salmonella</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Moulds</td>
<td>≤ 90</td>
<td></td>
</tr>
</tbody>
</table>

a: the method of sample analysis and treatment should be comply with GB 4789.1 and GB 4789.18.
b: not include product with fermented cream as ingredient.

**4.7 Food additives and nutrient fortifier**

4.7.1 The quality of food additives and nutrient fortifier should comply with corresponding safety standards and regulations.

4.7.2 The using of food additives and nutrient fortifier should comply with GB 2760 and GB 14880.