



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 19301-2010

Replacing GB 19301-2003

National food safety standard - Raw milk

食品安全国家标准 生乳

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1 Scope

This standard applies to raw milk. It does not apply to raw milk for direct consumption.

2 Normative references

The documents cited in this standard are indispensable to its application. For dated references, only the edition bearing that date applies to this standard. For undated references, the latest edition, including all amendments, applies.

The clause carries this introductory wording only: no document is listed under it in the printed text, although Clause 4 refers normatively to GB 2762, GB 2761 and GB 2763 and to the test methods GB 5413.38, GB 5413.33, GB 5009.5, GB 5413.3, GB 5413.30, GB 5413.39, GB 5413.34 and GB 4789.2.

3 Terms and definitions

3.1 Raw milk: normal milk drawn from the udder of a healthy milk animal meeting the relevant national requirements, none of whose constituents has been altered. Colostrum from the seven days following calving, milk drawn while antibiotics are being used and during the withdrawal period, and milk that has deteriorated shall not be used as raw milk.

4 Technical requirements

4.1 Sensory requirements shall comply with Table 1. Table 1 has three columns - item,

requirement and test method - and covers three items. Colour and lustre: milky white or slightly yellow. Taste and odour: has the flavour proper to milk, with no off-flavour. Texture: a uniform and consistent liquid, free of clots, free of sediment and free of foreign matter visible to normal eyesight. One test method is given for all three items: place a suitable amount of the sample in a 50 mL beaker, observe the colour and the texture under natural light, smell the odour, rinse the mouth with warm boiled water and taste.

4.2 Physical and chemical indexes shall comply with Table 2. Table 2 has three columns - item, index and test method - and seven items. Freezing point, in degrees Celsius, from -0.500 to -0.560, tested by GB 5413.38, and carrying footnotes a and b. Relative density at 20 °C over 4 °C, at least 1.027, tested by GB 5413.33. Protein, in g per 100 g, at least 2.8, tested by GB 5009.5. Fat, in g per 100 g, at least 3.1, tested by GB 5413.3. Impurity degree, in mg/kg, not more than 4.0, tested by GB 5413.30. Non-fat milk solids, in g per 100 g, at least 8.1, tested by GB 5413.39. Acidity, in degrees Thorner, from 12 to 18 for cow milk, which carries footnote b, and from 6 to 13 for goat milk, tested by GB 5413.34. Footnote a reads: tested 3 h after milking. Footnote b reads: applies only to Holstein cows.

The freezing point range is printed as running from -0.500 to -0.560, that is from the higher value to the lower one. It is reported as printed.

4.3 Limits of contaminants shall comply with GB 2762.

4.4 Limits of mycotoxins shall comply with GB 2761.

4.5 Microbiological limits shall comply with Table 3. Table 3 has three columns - item, limit in CFU/g(mL), and test method - and one item: total plate count, not more than 2 000 000, printed as 2 times 10 to the sixth power, tested by GB 4789.2.

4.6 Limits of pesticide residues and of veterinary drug residues. 4.6.1 Pesticide residues shall comply with GB 2763 and with the relevant national provisions and announcements.

4.6.2 Veterinary drug residues shall comply with the relevant national provisions and announcements.

A1 Amendment No. 1 to GB 19301-2010

Amendment No. 1 was approved by the National Health Commission of the People's Republic of China and the State Administration for Market Regulation in announcement No. 2 of 16 March 2025 and takes effect from the date of approval.

The acidity requirement for cow milk in Table 2, physical and chemical indexes, is changed. It read: acidity in degrees Thorner, cow milk from 12 to 18, test method GB 5413.34, with footnote b stating that the row applies only to Holstein cows. It now reads: acidity in degrees Thorner, cow milk from 10 to 18, test method GB 5009.239, with no footnote.

A2 Amendment No. 2 to GB 19301-2010

Amendment No. 2 was approved by the National Health Commission of the People's Republic of China and the State Administration for Market Regulation in announcement No. 6 of 2 September 2025 and takes effect from the date of approval.

In 4.2 physical and chemical indexes, the acidity requirement for goat milk in Table 2 is changed. It read: acidity in degrees Thorner, goat milk from 6 to 13, test method GB 5413.34. It now reads: acidity in degrees Thorner, goat milk from 8 to 20, test method GB 5009.239.

The Chinese wording of the row changes at the same time, from the general term for goat milk to the term for milk of the goat proper; both are rendered goat milk in English.

R Relationship to previous standards

The foreword states that this standard replaces GB 19301-2003 Hygienic standard for fresh milk together with its Amendment No. 1.

The main changes with respect to GB 19301-2003 are listed in the foreword: the name of the standard was changed to Raw milk; a clause of terms and definitions was added; the limits of contaminants now refer directly to GB 2762; the limits of mycotoxins now refer directly to GB 2761; the limits of pesticide residues now refer directly to GB 2763 and to the relevant national provisions and announcements; and the microbiological indexes were revised.

The foreword records the previous editions of the standard replaced as: GBn 33-1977 and GB 19301-2003.