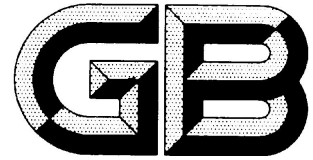


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National Standard of the People's Republic of China

GB/T 15037-XXXX

Replace GB/T 15037-2006

Wines

葡萄酒

(English Translation)

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Foreword

SAC/TC 471 is in charge of this English translation. In case of any doubt about the contents of English translation, the Chinese original shall be considered authoritative.

This standard is drafted in accordance with the rules given in the GB/T 1.1-2009.

This standard replaces the GB/T 15037-2006 Wines in whole. The following deviations have been made with respect to GB/T 15037-2006:

1) In terms and definitions:

- The definition of wines has been revised;
- The definition of semi-dry wines has been revised;
- The definition of sweet wines has been added;
- The terms and definitions of carbon dioxide-containing wines, actual alcohol strength, potential alcohol strength, total alcohol strength, caramelized grape juice, concentrated grape juice, and low alcohol wines have been added;
- The term and definition of sparkling wines have been deleted;
- The definition of sparkling wines has been revised;
- The terms and definitions of brut nature sparkling wines and extra brut sparkling wines have been added;
- The terms and definitions of liqueur wines, ice wines, noble wines, flor or film wines and aromatized wines have been revised;
- The term and definition of vitis amurensis wines have been deleted;
- The term and definition of wines of Chinese native vine have been added;
- The definitions of de-alcohol wines and partly de-alcohol wines have been revised;
- The term and definition of non-alcohol wines have been added.

2) In product classification:

- The classification according to the content of carbon dioxide has been revised;
- The classification of sparkling wines according to sugar content has been added;
- The classification according to actual alcohol strength has been added;
- The classification of special wines has been added.

3) In requirements:

- The requirements for raw and auxiliary materials of wines, sparkling wines, liqueur wines, and aromatized wines have been added;
- The sensory requirements for clarity, aroma and flavor have been revised;
- The requirements for total sugar in sparkling wines have been revised;
- The requirements for sugar free extract of rose wines have been revised;
- The requirements for citric acid in wines have been revised;
- The limited indexes of methanol, sanitary requirements, and requirements for sorbic acid and potassium sorbate have been canceled.

4) Analytical methods for actual alcohol strength, benzoic acid, iron and copper have been revised.

5) In inspection rules:

- The inspection items in the delivery items have been revised;
- The inspection requirements for type inspection have been revised;
- The unqualified classification in the determination rules have been revised.

GB/T 15037-XXXX

6) The requirements for product label and sign on the external package have been revised;
This standard was proposed by China National Light Industry Council.

This standard was prepared by National Technical Committee 471 on Brewing of Standardization Administration of China (SAC/TC 471).

The previous editions replaced by this standard are as follows:

----GB 15037-1994, and GB/T 15037-2006.

Wines

1. Scope

This standard specifies the terms and definitions, product classification, requirements, analytical methods, inspection rules, sign, packaging, transport, and storage of wines.

This standard is applicable to production, inspection and sales of wines.

2. Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 191 *Packaging-Pictorial sign for handling of goods*

GB 2758 *National food safety standard - Fermented alcoholic drink and integrated alcoholic beverage*

GB 5009.28 *National food safety standard - Determination of benzoic acid, sorbic acid and saccharin sodium in foods*

GB 5009.225 *National food safety standard - Determination of ethanol concentration in alcoholic drink*

GB 5009.268 *National food safety standard - Determination of multi-elements in foods*

GB 7718 *National food safety standard - General standard for the labeling of prepackaged foods*

GB/T 15038 *Analytical methods of wine and fruit-wine*

JJF 1070 *Rules of metrological testing for net quantity of products in prepackages with fixed content*

Measures for the Metrological Supervision and Administration of Quantitatively Packed Commodities (Decree No.75 [2005] of the General Administration of Quality Supervision, Inspection and Quarantine)

3. Terms and definitions

For the purposes of this document, the following terms and definitions shall apply.

3.1

wines

a type of fermented alcoholic drink, made from grape or grape juice through completely or partial alcoholic fermentation, containing certain alcohol strength

3.2

actual alcohol strength

the content of ethanol (mL, at 20 °C) in 100 mL of wines

3.3

potential alcohol strength

the content of ethanol (mL, at 20°C) that can be obtained through complete alcoholic fermentation of fermentable sugars contained in 100 mL of grape juice, fermentation broth or wines

3.4

total alcohol strength

the sum of potential alcohol strength and actual alcohol strength

3.5

caramelized grape juice

a type of grape juice, unfermented and partly dehydrated by heating, with density not

lower than 1.30 kg/L at 20 °C

3.6

concentrated grape juice

a type of unfermented and non-caramelized grape juice, partly dehydrated to have density not lower than 1.24 kg/L at 20 °C

3.7

dry wines

a type of wine, with the total sugar content smaller than or equal to 4.0 g/L, or a type of wine with maximum total sugar at 9.0 g/L when the difference between total sugar and total acid is smaller than or equal to 2.0 g/L

3.8

semi-dry wines

a type of wine, with the total sugar content larger than that of dry wines and maximum at 12.0 g/L, or a type of wine, with maximum total sugar at 18.0 g/L when the difference between total sugar and total acid is smaller than or equal to 10.0 g/L

3.9

semi-sweet wines

a type of wine, with the total sugar content larger than semi-dry wines, maximum at 45.0 g/L

3.10

sweet wines

a type of wine, with the total sugar content larger than 45.0 g/L

note: if sugar in sweet wines is totally from grapes, it can be called brut sweet wines

3.11

still wines

a type of wine, with carbon dioxide pressure smaller than 0.05 MPa at 20 °C

3.12

special wines

a type of wine, made through a particular method in cultivation, fruit pickup or wine-making technique

3.12.1

carbon dioxide-containing wines

a type of wine, with carbon dioxide pressure equal to or larger than 0.05 MPa at 20 °C

3.12.1.1

sparkling wines

a type of carbon dioxide-containing wine, with carbon dioxide (all generated through fermentation) pressure larger than or equal to 0.35 MPa at 20 °C (carbon dioxide pressure in a bottle with capacity smaller than 250 mL is equal to or larger than 0.3 MPa)

3.12.1.1.1

brut nature sparkling wines

a type of sparkling wine, with the total sugar content smaller than or equal to 3.0 g/L

3.12.1.1.2

extra brut sparkling wines

a type of sparkling wine, with the total sugar content between 3.1 g/L and 6.0

g/L

3.12.1.1.3

brut sparkling wines

a type of sparkling wine, with the total sugar content between 6.1 g/L and 12.0 g/L

3.12.1.1.4

extra-dry sparkling wines

a type of sparkling wine, with the total sugar content between 12.1 g/L and 17.0 g/L

3.12.1.1.5

dry sparkling wines

a type of sparkling wine, with the total sugar content between 17.1 g/L and 32.0 g/L

3.12.1.1.6

semi-dry sparkling wines

a type of sparkling wine, with the total sugar content between 32.1 g/L and 50.0 g/L

3.12.1.1.7

sweet sparkling wines

a type of sparkling wine, with the total sugar content larger than 50.0 g/L

3.12.1.2

semi-sparkling wines

a type of carbon dioxide-containing wine, with carbon dioxide (all generated through fermentation) pressure between 0.05 MPa and 0.34 MPa at 20 °C (carbon dioxide pressure in a bottle with capacity smaller than 250 mL is between 0.05 MPa and 0.29 MPa)

3.12.1.3

carbonated wines

a type of wine, containing carbon dioxide which is partly or completely added artificially and having similar physical characteristics as sparkling wines

3.12.2

liqueur wines

a type of wine, added with grape spirit, brandy or edible alcohol as well as grape juice, concentrated grape juice, caramelized grape juice, and white granulated sugar and with alcohol content of 15.0%vol to 22.0%vol.

3.12.3

ice wines

a type of wine, made from the grapes that have been kept on the vine for a certain period of time before being picked, when the weather temperature drops below -7 °C, and which were pressed and fermented under the frozen state (no additional sugar source is allowed in the production process)

3.12.4

low alcohol wines

a type of wine, having alcohol content lower than 7.0%vol by discontinuing fermentation.

3.12.5

noble wines

a type of wine, produced by grapes which are infected by *Botrytis cinerea* at the late ripening period of grapes and change a lot in terms of composition (no additional sugar source is allowed in the production process)

3.12.6

flor or film wines

a type of wine, produced by grape juice which are fermented completely with alcohol to form a layer of typical yeast film on the free surface of wines and then added with grape brandy, grape spirit or edible alcohol, and its alcohol content is between 15%vol. and 22.0%vol

3.12.7

aromatized wines

a type of wine, brewed with wine base, soaked with aromatic plant or added with extract of aromatic plant to have the characteristics of the aromatic plant or extract

Note: aromatic plant refers to plant with aroma used in food processing in accordance with related regulation

3.12.8

de-alcohol wines

a type of wine, produced by a wine base with an alcohol of no less than 7%vol that have been completely or partially fermented from grape or grape juice, which then have undergone the special treatment to reduce the alcohol content

3.12.8.1

partly de-alcohol wines

a type of de-alcohol wine, with an alcohol content between 0.5%vol and 7.0%vol

3.12.8.2

non-alcohol wines

a type of de-alcohol wine, with an alcohol content smaller than 0.5%vol

3.12.9

wines of Chinese native vine

a type of wine, brewed with grapes of Chinese native vines including wild or cultivated *vitis amurensis*, *vitis heynana*, *vitis davidii*, and *vitis romaneti* and their hybrid varieties or grape juice made through complete or partial alcohol fermentation

note: names of these wines produced are *Vitis amurensis* wines, *Vitis heynana* wines, *Vitis davidii* wines, and *Vitis romaneti* wines

3.13

vintage wines

a type of wine, made from grapes marked with year of pickup, in which wine marked with year accounts for not lower than 80% (volume fraction) of total volume

3.14

varietal wines

a type of wine, brewed with grapes marked with variety and accounting for not lower than 75% (volume fraction) of total volume

3.15

original wines

a type of wine, brewed with grapes marked with place of origin and accounting for not lower than 80% (volume fraction) of total volume

4. Product classification

4.1 According to the color of products, wines shall be divided into:

- 4.1.1 White wines
- 4.1.2 Rose wines
- 4.1.3 Red wines

4.2 According to the carbon dioxide of products, wines shall be divided into:

- 4.2.1 Still wines
- 4.2.2 Carbon dioxide-containing wines
 - 4.2.2.1 Sparkling wines
 - 4.2.2.2 Semi-sparkling wines
 - 4.2.2.3 Carbonated wines

4.3 According to the sugar content of products, wines shall be divided into:

- 4.3.1 Still wines
 - 4.3.1.1 Dry wines
 - 4.3.1.2 Semi-dry wines
 - 4.3.1.3 Semi-sweet wines
 - 4.3.1.4 Sweet wines
- 4.3.2 Sparkling wines
 - 4.3.2.1 Brut nature sparkling wines
 - 4.3.2.2 Extra brut sparkling wines
 - 4.3.2.3 Brut sparkling wines
 - 4.3.2.4 Extra-dry sparkling wines
 - 4.3.2.5 Dry sparkling wines
 - 4.3.2.6 Semi-dry sparkling wines
 - 4.3.2.7 Sweet sparkling wines

4.4 According to the alcohol content of products, wines shall be divided into:

- 4.4.1 Wines
- 4.4.2 Low alcohol wines

4.5 Category of special wines

- 4.5.1 Carbon dioxide-containing wines
- 4.5.2 Ice wines
- 4.5.3 Low alcohol wines
- 4.5.4 Noble wines
- 4.5.5 Flor or film wines
- 4.5.6 Liqueur wines
- 4.5.7 Aromatized wines
- 4.5.8 De-alcohol wines (including partly de-alcohol wines and non-alcohol wines)
- 4.5.9 Wines of Chinese native vine

5. Technical requirements**5.1 Requirements for raw and auxiliary materials****5.1.1 Wines**

- 5.1.1.1 Potential alcohol strength of raw materials shall not be lower than 7.0%vol.
- 5.1.1.2 Concentrated grape juice or white granulated sugar is allowed in the production process added as external sugar source to increase alcohol content. The maximum additive amount of external sugar shall not exceed 2.0%vol of the alcohol content.
- 5.1.1.3 For purpose of increasing sweetness of products, additives are limited to concentrated grape juice and white granulated sugar. The additive amount of white

granulated sugar shall not exceed 10% of total mass.

5.1.1.4 5.1.1.2 and 5.1.1.3 are not applicable to ice wines, noble wines, and sparkling wines.

5.1.2 Sparkling wines

Liquid sugar can be added, including grape juice, concentrated grape juice, white granulated sugar, grape spirit and brandy. The additive amount of liquid sugar shall not exceed 10% of total volume or total mass.

5.1.3 Liqueur wines

The total amount of added grape spirit, brandy or edible alcohol, grape juice, concentrated grape juice, caramelized grape juice and white granulated sugar shall not exceed 25% of total volume or total mass.

5.1.4 Aromatized wines

The total amount of addition of aromatic plant extract, grape spirit or grape spirit soaked with aromatic plant shall not exceed 25% of total volume or total mass.

5.2 Sensory requirements

The sensory requirements for still wines and carbon dioxide-containing wines shall comply with the provisions in Table 1. Other special wines shall comply with the corresponding product standard.

Table 1 Sensory requirements

Items		Requirements	
Appearance	Color	White wines	Nearly colorless, light yellow mixed with green, light yellow, straw yellow, golden
		Red wines	Purplish red, dark red, ruby red, red with a little brown, and brownish red
		Rose wines	Carmine rose, light rose red, light red
	Clarity	Clear, glossy, with no visible suspension (a few sediments allowed)	
Sparkling degree	Bubbles like a string of beads will rise when carbon dioxide-containing wine is poured into a glass.		
Aroma and taste	Aroma		With pure and natural aroma of fruit and wine; vintage wines shall have aroma of ageing.
	taste	Dry and semi-dry wines	With pure and natural flavor, pleasant aroma of fruit, and a complete body
		Semi-sweet and sweet wines	With pure taste and wine aroma, balance and a full body
		Sparkling wines	With pure and natural flavor, and special aroma of carbon dioxide-containing wines and strong taste.
Typicality		Wines shall have characteristics and style of marked grape variety and product type.	
Note: sensory evaluation can refer to Annex A.			

5.3 Physical and chemical requirements

The physical and chemical requirements for still wines and carbon dioxide-containing wines shall comply with the provisions in Table 2. Other special wines shall comply with the

corresponding product standard.

Table 2 Physical and chemical requirements

Items		Requirements	
Alcohol content ^a (20 °C)/%vol		≥7.0	
Total sugar ^d (expressed as glucose)/(g/L)	Still wines	Dry wines ^b	≤4.0
		Semi-dry wines ^c	4.1-12.0
		Semi-sweet wines	12.1-45.0
		Sweet wines	≥45.1
	Sparkling wines	Brut nature sparkling wines	≤3.0
		Extra brut sparkling wines	3.1-6.0
		Brut sparkling wines	6.1-12.0 (tolerance is 3.0)
		Extra-dry sparkling wines	12.1-17.0 (tolerance is 3.0)
		Dry sparkling wines	17.1-32.0 (tolerance is 3.0)
		Semi-dry sparkling wines	32.1-50.0
Carbon dioxide (20 °C)/MPa	Semi-sparkling wines	<250 mL/bottle	0.05-0.29
		≥250 mL/bottle	0.05-0.34
	Sparkling wines	<250 mL/bottle	≥0.30
		≥250 mL/bottle	≥0.35
	Carbonated wines	≥0.05	
Sugar free extract/(g/L)	White and rose wines	≥16.0	
	Red wines	≥18.0	
Volatile acid (expressed as acetic acid)/(g/L)		≤1.2	
Citric acid/(g/L)		≤1.0	
Iron/(mg/L)		≤8.0	
Copper/(mg/L)		≤1.0	
Benzoic acid/(g/kg)		≤0.05	
Note: no requirement is made for total acid, indicated by actual value (expressed as tartaric acid, g/L).			
^a Deviation of alcohol content between the label indication value and the actual value shall not exceed ± 1.0%vol.			
^b If the difference between total sugar and total acid (expressed as tartaric acid) is smaller than or equal to 2.0 g/L, total sugar is maximum at 9.0 g/L.			
^c If the difference between total sugar and total acid (expressed as tartaric acid) is smaller than or equal to 10.0 g/L, total sugar is maximum at 18.0 g/L.			
^d The requirements for total sugar of semi-sparkling wines are the same as those for still wines.			

5.4 Net quantity

The regulation specified in *Measures for the Metrological Supervision and Administration of Quantitatively Packaged Commodities* (Decree No.75 [2005] of the General Administration of Quality Supervision, Inspection and Quarantine) shall be complied with.

6. Analytical method

6.1 Sensory requirements

Inspect as specified in GB/T 15038.

6.2 Physical and chemical requirements (excl. benzoic acid)

6.2.1 Alcohol content

Inspect as specified in GB 5009.225 or GB/T 15038

6.2.2 Total sugar, sugar free extract, volatile acid, carbon dioxide, and citric acid

Inspect as specified in GB/T 15038.

6.2.3 Iron and copper

Inspect as specified in GB 5009.268 or GB/T 15038.

6.3 Benzoic acid

Inspect as specified in GB 5009.28.

6.4 Net quantity

Inspect as specified in JJF 1070.

7. Inspection rules

7.1 Batch

Products produced in the same production period, the same category, the same quality, and the same specification are regarded as the same batch.

7.2 Sampling

7.2.1 Sampling shall be carried out as specified in Table 3. If the net quantity of a single pack is smaller than 500 mL and the total amount of samples is less than 1 500 mL, the sampling volume should be increased proportionally.

Table 3 Sampling

Sampling batch range/box	Sample quantity/box	Unit sample quantity (bottle)
≤ 50	3	3
51 to 1 200	5	2
1 201 to 35 00	8	1
≥35 01	13	1

7.2.2 Once taken, the samples shall be immediately attached with labels indicating their name, category and specifications, quantity, name of the manufacturer, sampling time and place, and sampler. Two bottles of the sample shall be sealed and stored for 2 months for future use. Other sample bottles shall be immediately sent to laboratories for the inspection of the sensory, physical and chemical indexes.

7.3 Inspection classification

7.3.1 Delivery inspection

7.3.1.1 Before the product leaves the factory, the quality supervision and inspection department of the manufacturer shall inspect products batch by batch as specified by this standard. Products shall not be delivered until being qualified inspection and issued with quality certificate. The product quality inspection qualification certificate shall be either enclosed in the packaging box or in an independent

packaging box, or “qualified” or “inspected and qualified” shall be printed on the label or packaging box.

7.3.1.2 Inspection items: sensory requirements, alcohol content, total sugar, sugar free extract, volatile acid, carbon dioxide (only for carbon dioxide-containing wines), and net quantity.

7.3.2 Type inspection

7.3.2.1 Inspection items: all items as specified in this standard.

7.3.2.2 In most cases, the type inspection for the same category of products shall be carried out once every year. However, in any of following cases, the type inspection shall be carried out.

- a) Any major change in raw and auxiliary materials;
- b) Any change in critical process or equipment;
- c) Resumed production of the newly trial-manufactured products or the products under normal production after suspended for three months;
- d) Significant difference between the delivery inspection and the last type inspection results;
- e) Sampling inspection required by the national quality supervision and inspection authority according to relevant provisions.

7.4 Judgment rules

7.4.1 Classification of unqualified items

----Category A: sensory requirements, alcohol content, sugar free extract, volatile acid, citric acid, benzoic acid, net quantity, and label;

----Category B: total sugar, carbon dioxide (only for carbon dioxide-containing wines), iron, and copper.

7.4.2 If any inspection item has two or less items which do not comply with the requirements, double-size sample shall be taken from the same batch of products for re-inspection, and the re-inspection result shall prevail.

7.4.3 In any one of the following cases of the re-inspection results occurs, the batch shall be deemed unqualified:

- a) More than one (including one) item of category A is unqualified;
- b) One item of category B exceeds the specified value by more than 50%;
- c) Two or more items of category B are unqualified.

7.4.4 When the supply and demand sides dispute over the inspection results, which should be resolved by the relevant parties through consultation, or entrust relevant institutions to conduct arbitration inspection, and the arbitration inspection results shall prevail.

8. Sign

8.1 Prepackaged wines shall be labelled as specified in GB 2758 and GB 7718 and shall be specified with product type or (total sugar content) according to the total sugar content.

8.2 If to specify year, variety and place of origin on the label, the specification shall comply with the definitions in 3.13, 3.14, and 3.15.

8.3 Wines of Chinese native vine named with *Vitis amurensis*, *Vitis heyneana*, *Vitis davidii*, and *Vitis romaneti* shall comply with the requirements in 3.14.

8.4 Special wines shall be indicated with specific name.

8.5 In addition to product name, manufacturer (or manufacturer and dealer) name and address, the external packaging box shall be indicated with specification and net quantity.

8.6 Packaging—pictorial marking for handling of goods shall comply with the requirements in GB/T 191.

9. Packaging, transport and storage

9.1 Packaging

9.1.1 Packaging materials shall comply with the requirements in food safety. Packaging materials for carbon dioxide-containing wines shall comply with the corresponding standard of pressure resistance.

9.1.2 Packaging containers shall be kept clean, well-sealed and no wine leakage.

9.1.3 External packaging materials shall be qualified and comply with the corresponding standard.

9.2 Transport and storage

9.2.1 Wines sealed with corks (or alternatives) shall be placed horizontally or upside-down during transport and storage.

9.2.2 Wines shall be kept clean, and avoid serious oscillation, sunlight, rain and prevent freezing during transport and storage, and handled with care when loading and unloading.

9.2.3 The storage place shall be cool, dry, and well-ventilated; exposure to sunlight, rain and fire source shall be prevented.

9.2.4 The finished products shall not directly contact with the humid ground and shall not be transported and stored with toxic, poisonous, unpleasant-odor and corrosive goods.

9.2.5 The proper temperature of the products should range between 5 °C and 35 °C during transport, and between 5 °C and 25 °C during storage.

Annex A
(Informative)
Sensory grading evaluation description of wines

Table A.1 Sensory grading evaluation description of wines

Grade	Description
Superior	Products have color as required and look natural, pleasant, clear (transparent) and glossy; have mellow, strong, and elegant fruit aroma (bouquet), and scents mixed harmonically, fine and smooth taste, full body, complete and long aftertaste; have required pleasant style.
Premium	Products have required color, are clear and transparent without evident suspension, have mellow and harmonic fruit aroma (bouquet) and taste, are smooth and complete, elegant, and have long aftertaste and excellent style.
Qualified	Products have color slightly different from the requirement, lack of nature feeling, have a few sediments, have required flavor without peculiar smell, and are mild in taste, less harmonic, complete without evident defects.
Defective	Products have color in obvious inconformity with the requirement, lose hue or are turbid, have strong unpleasant aroma and smell, and are light and inharmonic or have other evident defects (except color, any product with any defect above shall be deemed unqualified).
Inferior	Products have no required characteristics.