

Translated English of Chinese Standard: GB1887-2007

www.ChineseStandard.net

Sales@ChineseStandard.net

GB

NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA

ICS 67.220.20

X 42

GB 1887-2007

Replacing GB 1887-1998

Food additive - Sodium bicarbonate

食品添加剂 碳酸氢钠

GB 1887-2007 How to BUY & immediately GET a full-copy of this standard?

1. www.ChineseStandard.net;
2. Search --> Add to Cart --> Checkout (3-steps);
3. No action is required - Full-copy of this standard will be automatically & immediately delivered to your EMAIL address in 0~25 minutes.
4. Support: Sales@ChineseStandard.net. Wayne, Sales manager

Issued on: October 29, 2007

Implemented on: June 01, 2008

Issued by: General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China;

Standardization Administration of the People's Republic of China.

Table of Contents

Foreword.....	3
1 Scope	5
2 Normative references	5
3 Symbol	6
4 Property.....	6
5 Requirements	6
6 Test methods	6
7 Inspection rules	14
8 Mark and label.....	14
9 Package, transportation, and storage.....	15

Foreword

Clause 5 and Clause 8 in this standard are mandatory; and the rest are recommended.

The consistent degree between this standard and the standard *Sodium Bicarbonate (2002)* of Codex Alimentarius Commission is non-equivalent.

This standard replaces GB1887–1998 *Food Additive - Sodium Bicarbonate*.

Compared with GB1887–1998, the main changes of this standard are as follows:

- Adjust the indicator parameters correspondingly (3.2 of Edition 1998; Clause 5 of this standard);
- Add the indicator and test method of content and whiteness of chloride (Clause 5 of this standard);
- Improve the determination method of dry loss (4.3 of Edition 1998; 6.5 of this edition);
- Improve the determination method of pH value (4.4 of Edition 1998; 6.6 of this standard);
- Improve the determination method of content of heavy metal (4.6 of Edition 1998; 6.8 of this standard);
- Improve the package and storage (Clause 6 of Edition 1998, Clause 9 of this standard).

This standard was proposed by China Petroleum and Chemical Industry Association.

This standard shall be under the jurisdiction of Inorganic Chemicals Branch of National Standardization Technical Committee (SAC/TC 63/SC 1) and National Food Additives Standard Technical Committee (SAC/TC 11).

Drafting organizations of this standard: Tianjin Research & Design Institute of chemical industry, Tianjin Alkali Factory, Inner Mongolia Yuanxing Natural Alkali Co., Ltd., Xilinguole Sunite Alkali Co., Ltd., Soda Plant of Shandong Haihua Group, Lianyungang Alkali Factory of Nanjing Chemical Industry Co., Ltd. of Sinopec Group, Zigong Honghe Chemical Co., Ltd., Jiangsu Debang Xinghua Chemical Co., Ltd., Qingdao Alkali Co., Ltd., Hengyang Yuhua Chemical Industry Co., Ltd., Hengyang Hailian Bittern Chemical Co., Ltd., Guangzhou Nanxian Chemical Co., Ltd., and Alkali Lake Test Station of Inner Mongolia Yuanxing Natural Alkali Co., Ltd.

Main drafters of this standard: Liu Youruo, Zhao Meijing, Wang Ping, Fu Yongli, Ma Wenyan, Li Peijun, Geng Wenfa, Zou Hong, Liu Zhen, Han Yang, Li Lili, Li Yeyong, Gao Rungeng, and Li Yongzhong.

The previous versions replaced by this standard are as follows:

Food Additive Sodium – Bicarbonate

1 Scope

This standard specifies the requirements, test method, inspection rules, sign, label, package, transportation and storage of food additive sodium bicarbonate.

This standard is applicable to the food additive sodium bicarbonate. This product can be used as the leavening agent or processing aids for food industry.

2 Normative references

The articles contained in the following documents have become part of this standard when they are quoted herein. For the dated documents so quoted, all the modifications (excluding corrections) or revisions made thereafter shall not be applicable to this standard. For the undated documents so quoted, the latest editions shall be applicable to this standard.

GB/T 191-2000 Packaging - Pictorial marking for handling of goods (eqv ISO 780: 1997)

GB/T 3051-2000 Inorganic chemical products for industrial use - General method for determination of chloride content - Mercurimetric method

GB/T 5009.74-2003 Method for limit test of heavy metals in food additives

GB/T 5009.76-2003 Determination of arsenic in food additives

GB/T 6678 General principles for sampling chemical products

GB/T 6682-1992 Water for laboratory use - Specifications

GB/T 9724 Chemical reagent - General rule for the determination of pH

HG/T 3696.1 Inorganic chemical products - Preparations of standard volumetric solutions for chemical analysis

HG/T 3696.2 Inorganic chemical products - Preparations of standard solutions for chemical analysis

HG/T 3696.3 Inorganic chemical products - Preparations of reagent solutions for chemical analysis

m_1 - Value of mass of weighing bottle and specimen before drying, and the unit is g;

m_2 - Value of mass of weighing bottle and specimen after drying, and the unit is g;

m - Value of mass of specimen, and the unit is g.

Take the arithmetic mean value of parallel determination results as the determination result. The absolute difference of two parallel determination results shall not be more than 0.02%.

6.6 Determination of pH value

6.6.1 Instrument

PH meter: the accuracy is 0.02 pH unit.

6.6.2 Analysis steps

Weight $1.00\text{ g} \pm 0.01\text{ g}$ of specimen; put it in a 250 mL beaker. Add about 100 mL of water without carbon dioxide to dissolve the specimen. Determine within 10 min according to the regulations of GB/T 9724 (since the time when adding the water).

6.7 Determination of arsenic content

6.7.1 Method summary

It is same as Clause 8 of GB/T 5009.76–2003.

6.7.2 Reagents

6.7.2.1 Hydrochloric acid solution: 1+3;

6.7.2.2 Arsenic standard solution: 1 mL of this solution contains $1\mu\text{g}$ of arsenic.

Weigh 1.00 mL of arsenic standard solution according to the requirements of HG/T 3696.2; put it in a 100 mL bottle; use water to dilute to the mark; and shake it uniformly. Prepare this solution before using it.

6.7.2.3 Other reagents are same as Clause 9 of GB/T 5009.76.

6.7.3 Instruments and equipment

It is same as Clause 10 of GB/T 5009.76–2003.

6.7.4 Analysis steps

Weigh $1.00\text{ g} \pm 0.01\text{ g}$ of specimen; put it in a 100 mL beaker. Add 10 mL of hydrochloric acid solution to dissolve the specimen.

Use pipette to weigh 1 mL of arsenic standard solution as the standard comparison solution. Determine according to the regulations of Clause 11 of GB/T 5009.76–2003.

6.11.2.2.1 95% (volume fraction) ethanol solution;

6.11.2.2.2 Nitrate solution: 1+6;

6.11.2.2.3 Silver nitrate solution: 17 g/L;

6.11.2.2.4 Chloride standard solution: 1 mL of this solution contains 0.01 mg of chloride.

Take 10.00 mL of chloride standard solution according to the requirements of HG/T 3696.2; put it in a 100 mL bottle; use the water to dilute to the mark; and shake it uniformly.

6.11.2.3 Analysis step

Weigh $1.00\text{ g} \pm 0.01\text{ g}$ of specimen; put it in a 50 mL beaker; add the appropriate water to dissolve; transfer all to a 100 mL volumetric bottle; use water to dilute to the mark; shake it uniformly. Use pipette to take 25 mL of above test solution; put it in a 50 mL colorimetric tube; add 1 mL of ethanol solution with the volume fraction of 95%, 3 mL of nitric acid solution, and 2 mL of silver nitrate solution; use water to dilute to the mark; shake it slightly. After placing it for 10 min, compare the standard turbidity solution against black background. The generated turbidity must not be deeper than the standard turbidity solution.

Take 0.50 mL, 1.50 mL, 2.00 mL, 2.50 mL, 5.00 mL of chloride standard solution as the standard turbidity solutions; process it together with the specimen in the same way at the same time.

6.12 Determination of whiteness

6.12.1 Instruments and equipment

Whiteness meter: with the standard whiteness plate and working whiteness plate; the division value is 0.2 degree;

Standard whiteness plate.

6.12.2 Analysis steps

Use the regularly-calibrated standard whiteness plate to calibrate the working whiteness plate. Adjust the whiteness meter to the working state; put the specimen in powder dish uniformly, so as to make the specimen exceed about 2cm of powder dish. Use the smooth glass plate to cover on the surface of specimen; tightly press the specimen; rotate it slightly; remove the glass plate. Observe the specimen surface along the horizontal direction. It shall be free of unevenness, defect, scar and other abnormal conditions.

Put the specimen dish on the instrument platform; determine the whiteness value, accurate to 0.1 degree. Put the specimen dish on the instrument platform to rotate 90 degrees; determine the whiteness value, accurate to 0.1 degree; then rotate it for 90 degrees; determine the whiteness value, accurate to 0.1 degree. The difference of three determined results shall not be more than 0.5 degrees.

9 Package, transportation, and storage

9.1 The food additive sodium bicarbonate shall use the following packaging method:

9.1.1 Plastic woven bag package: the inner package shall use the polyethylene plastic film bag for food; the inner bag shall be manually tied by the nylon rope or other ropes with the equivalent quality, or use other equivalent ways to seal the mouse. The outer package shall use the plastic woven bag; the outer bag shall use the nylon rope or other wire with the equivalent quality to seam the mouth; the seam line shall be tidy; the needle space is uniform; and there shall not be leakage and jumper phenomenon. Align the mouth of inner and outer bags; fold the edges and seam; use the nylon rope or other wire with the equivalent quality to seam; the seam wire shall be tidy; the needle space is uniform; and there shall not be leakage and jumper phenomenon. The net content of each bag is 25 kg, 50 kg.

9.1.2 Laminating bag packaging: fold the edges and seam; use the nylon rope or other wire with the equivalent quality to seam; the seam wire shall be tidy; the needle space is uniform; and there shall not be leakage and jumper phenomenon. The net content of each bag is 25 kg, 50 kg.

9.1.3 Small bag packaging: use the polyethylene plastic film bag for food; the thickness shall not be less than 0.05 mm. Use the heat sealing, without leakage. The net content of each bag is 250g or 500 g. Put a certain quantity of small package bags in plastic woven bag or paper box; the performance and inspection method shall comply with the relevant regulations.

9.1.4 Negotiate and determine the packaging capacity and method according to the user requirements.

9.2 During the transportation process, the food additive sodium bicarbonate shall have the cover to prevent the sun, rain and moisture. Do not mix with acid, volatile organic compounds, toxic, and hazardous materials in transportation.

9.3 Store the food additive sodium bicarbonate in a special warehouse; store away from the ground and wall; and stack it. Place in the cool and dry place to prevent the sun, rain and moisture. Do not mix with acid, volatile organic compounds, toxic, and hazardous materials in storage.

9.4 The food additive sodium bicarbonate shall meet the package, transportation and storage conditions of this standard. The shelf life is 12 months since the date of production. If it is overdue, re-inspect it whether it meets the requirements of this standard.

_____ END _____

This is an excerpt of the PDF (Some pages are marked off intentionally)

Full-copy PDF can be purchased from 1 of 2 websites:

1. <https://www.ChineseStandard.us>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Select your country (currency), for example: USA (USD); Germany (Euro).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Tax invoice can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with download links).

2. <https://www.ChineseStandard.net>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Add to cart. Only accept USD (other currencies - <https://www.ChineseStandard.us>).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with PDFs attached, invoice and download links).

Translated by: Field Test Asia Pte. Ltd. (Incorporated & taxed in Singapore. Tax ID: 201302277C)

About Us (Goodwill, Policies, Fair Trading...): <https://www.chinesestandard.net/AboutUs.aspx>

Contact: Wayne Zheng, Sales@ChineseStandard.net

Linkin: <https://www.linkedin.com/in/waynezhengwenrui/>

----- The End -----