



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

GB 1886.245-2016

Replacing GB 25591-2010

**National Food Safety Standard -- Food Additives -- Composite
Leavening Agent**

食品安全国家标准 食品添加剂 复配膨松剂

(English Translation)

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Foreword

This standard replaces GB 25591-2010 "national food safety standards for food additives composite leavening agent." this standard compared with GB 25591-2010, the main changes are as follows.

- Standard name was changed to "national food safety standards for food additives complex leavening agent";
- Modify the scope of the standard;
- Revised standard technical requirements;
- To add products into the aluminum-containing food additives and complex leavening agent is not added aluminum-containing food additives complex leavening agent;
- Remove the index fineness;
- Revised test methods insoluble matter content nitrate, arsenic concentration and pH.

National Food Safety Standard Food Additives complex leavening agent

1 Scope

This standard applies to GB 2760 allows the use of food additives and food materials by physical mixing method from the complex bulky Agent (also called baking powder, foam powder, baking powder).

2.1 Basic requirements

2.1.1

complex leavening agent shall comply with GB 26687-2011 in 4.1.1,4.1.2,4.1.3 and 4.1.4.

2.1.2

adds aluminum-containing food additives (such as potassium aluminum sulfate, ammonium aluminum sulfate) of complex leavening agent aluminum content should be consistent identification, inspection party See Appendix D. Law

2.2 Sensory requirements

Sensory requirements shall comply with the requirements of Table 1.

Table 1 Sensory requirements

Project requires test methods Color White State powder Take appropriate 50mL sample is placed in a beaker, and observe the color under natural light status

2.3 Physical indicators

Physical and chemical indicators should be consistent with the provisions of Table 2.

Table 2. Physical and chemical indicators

Item Index Test Method Carbon dioxide gas generation amount (standard state)/(mL/g) $\geq$ 35.0 Appendix A A.3 Heating loss, w /% $\leq$ 3.0 Appendix A A.4 Nitric acid insoluble matter, w /% $\leq$ 2.0 A.5 in Appendix A pH (10g/L solution) 5.0-9.0 A, Appendix A.6 Arsenic (As)/(mg/kg) $\leq$ 2.0 GB 5009.76 Heavy metals (Pb)/(mg/kg) $\leq$ 20 Appendix A A.7

3 Logo

Added aluminum-containing food additives (such as potassium aluminum sulfate, ammonium aluminum sulfate) complex product shall be marked with a leavening agent for aluminum products in the packaging and labeling (Al) content without adding an aluminum-containing food additives (such as potassium aluminum sulfate, ammonium aluminum sulfate) of complex leavening agent can be identified on the product packaging "is not added aluminum".

Appendix A

Testing method

A.1 Warning

Reagents The standard test methods used for toxic or corrosive, the operation should take appropriate safety and health practices.

A.2 General Provisions this standard reagents and water, did not indicate when the other requirements, refer to the three water analytical reagent and GB/T 6682 stipulated.

Standard Solution of the standard tests required impurity measured by standard solution, preparations and products, in the absence of other requirements specified according to

GB/T 601, GB/T 602, the provisions of the preparation of GB/T 603's. The solution in a solvent which does not indicate by when formulated, refers to an aqueous solution.

A.3 Determination of the amount of carbon dioxide gas generation A.3.1 Reagents and materials A.3.1.1 hydrochloric acid solution. 12.

A.3.1.2 replacement solution. Weigh 100g of sodium chloride and placed in a beaker, 350mL of water was added to dissolve, plus 1g of sodium bicarbonate and 2 drops of methyl orange indicator solution, a solution of hydrochloric acid solution until the solution was slightly red.

A.3.2 Instruments and Equipment Carbon dioxide gas generating capacity measuring device shown in Figure A.1.

Millimeters

Explanation.

- 1 --- gas generating round-bottomed flask;
- 2 --- a water bath;
- 3 --- a dropping funnel;
- 4 --- condenser;
- 5 --- three-way valve;
- 6 --- have the amount of gas jacket tube;
- 7 --- standard bottle;
- 8 --- thermometer;
- Stopper. 9;
- 10 --- hose.

Figure A.1 generation amount of carbon dioxide gas measuring device

A.3.3 Analysis step

As shown in Figure A.1 connecting the portion of the device. Three-way rotary valve 5, the apparatus through the atmosphere, lifting the standard of bottle 7, to move the internal displacement Solution, the amount of gas pipe alignment 6 scale to zero. 4 through the condenser cooling water, rotary three-way valve 5, so that the amount of gas tube condenser 4 and 6 with through. Remove the gas generating round-bottom flask 1, was added 100mL of water, and with a soft paper wrapped around 1g sample, accurate to 0.0002g. Put in Round bottom flask with a gas generator, the flask was quickly connected, placed in a water bath at 75 °C was heated, reducing the level bottle 7, added from the dropping funnel 3 20mL hydrochloric acid solution into the immediate closure of the valve a

dropping funnel, slowly shaking continued gas generating bottle. 3min after suitably adjusted standard bottle 7 position, when the amount of the gas pipe 6 and 7 bottles of liquid level to strike a balance scale reading level V1 (mL) and reading a thermometer 8, with Measured atmospheric pressure. Isolated and atmospheric vapor pressure according to Appendix B and Appendix C correction value. Steps above blank test. air White test samples without addition, other operating and kind and amount of addition of reagents (except standard titration solution) with the same Test.

A.3.4 Calculation Results Carbon dioxide gas generation amount per gram of the sample under the standard volume of carbon dioxide generated by w1 count milliliters per gram (mL/g), According to formula (A.1) Calculated.

$$(V1-V2) \times (P1-P2)$$

$$101.3 \times m1 \times$$

$$273 \text{ t}$$

Where.

V1 --- measured amount of sample gas pipe surface scale value in milliliters (mL);

V2 --- blank test tube gas volume level scale values in milliliters (mL);

Atmospheric correction P1 --- when measured after units of kilopascals (kPa);

Vapor pressure P2 --- t °C water when corrected, in units of kilopascals (kPa);

M1 --- the quality of the sample, in grams (g);

t --- thermometer readings when measured in degrees Celsius (°C);

101.3 --- under standard conditions atmospheric pressure in units of kilopascals (kPa);

273 --- temperature under standard conditions, in units of degrees Kelvin (K).

The results parallel arithmetic mean of the measurement results shall prevail. Twice under the same condition of independent determination results obtained absolute difference not more than 3mL/g.

A.4 Determination of loss on heating A.4.1 Instruments and Equipment A.4.1.1 electric oven. temperature can be controlled to $105\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$.

A.4.1.2 weighing bottle. phi50mm x 30mm.

A.4.2 Analysis step

Weigh about 5g samples, accurate to 0.0002g, has been placed in a dry to a constant mass of $105\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ weighing bottle and transferred to electric Thermostatic oven at $60\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ heat 2h. After cooling to room temperature in a desiccator and weigh.