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**GB**

NATIONAL STANDARD OF THE  
PEOPLE'S REPUBLIC OF CHINA

**GB 29949-2013**

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**National Food Safety Standard -  
Food additives - Arabic gum**

食品安全国家标准

食品添加剂 阿拉伯胶

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# National Food Safety Standard - Food additive - Arabic gum

## 1 Scope

This standard is applicable to food additive Arabic gum of which, prepared by physical processing, the raw material is obtained from the gelatinous secretions of stems of Arabic gum-tree [*Acacia senegal* (L.) Willdenow] or the similar Acacia tree [*Acacia seyal* (Fam. Leguminosae)].

## 2 Technical requirements

### 2.1 Sensory requirements

Sensory requirements shall meet the requirements of Table 1.

**Table 1 -- Sensory requirements**

| Item  | Requirement        | Inspection method                                                                                      |
|-------|--------------------|--------------------------------------------------------------------------------------------------------|
| Color | White to brown     | Take an appropriate amount of sample; place it in a white porcelain dish; observe under natural light. |
| State | Granular or powder |                                                                                                        |

### 2.2 Physical and chemical indicators

Physical and chemical indicators shall meet the requirements of Table 2.

## **Appendix A**

### **Testing method**

#### **A.1 General provisions**

Unless otherwise specified in this standard, the purity of the reagents used shall be above analytical purity; the standard titration solution used, the standard solution used for the determination of impurities, the preparations and products shall all be prepared according to the provisions of GB/T 601, GB/T 602, and GB/T 603. The experimental water shall comply with Grade-3 water in GB/T 6682-2008. When the solution used in the test does not indicate which solvent is used for preparation, then it refers to the aqueous solution.

#### **A.2 Identification test**

##### **A.2.1 Solubility**

1g of sample is soluble in 2mL of water; it is not soluble in ethanol.

##### **A.2.2 Optical rotation**

Weigh 1g of sample (calculated on a dry basis); dissolve it in 100 mL of water; let it stand for defoaming; that is the sample solution. Use a 200mm optical-rotation tube; use the method in GB/T 613 to determine the specific optical-rotation of the sample solution. For sample solution from the Arabic gum-tree, it shall be left-rotated; For sample solution from Acacia tree, it shall be right-rotated.

#### **A.3 Determination of acid-insoluble ash**

##### **A.3.1 Reagents and materials**

Hydrochloric acid solution: 10%.

##### **A.3.2 Analysis steps**

Measure 25mL of hydrochloric acid solution; add it to the ash that was obtained during ash determination; boil for 5min. Use filter crucible or ashless filter paper to filter; use hot water to wash the filter residue for several times; burn to constant-weight at  $800^{\circ}\text{C} \pm 25^{\circ}\text{C}$ .

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