

# Specifications Standard for Gum Arabic as Food Raw Material

DOH Food No.6217464 announcement, 21 November 1986

MOHW Food No. 1021350146 Amended, 20 August 2013

MOHW Food No. 1051301295 Amended, 29 April 2016

## Article 1

This Standard is prescribed in accordance with the provisions of Article 17 of the Act Governing Food Safety and Sanitation.

## Article 2

Gum Arabic (Gum arabic ; Acacia gum) as food raw material shall comply with the following specifications:

1. Definition: Gum arabic is a dried exudate obtained from the stems and branches of strains of *Acacia senegal* (L.) Willdenow or closely related species of Acacia (family *Leguminosae*). It consists mainly of high-molecular weight polysaccharides and their calcium, magnesium and potassium salts, which on hydrolysis yield arabinose, galactose, rhamnose and glucuronic acid.
2. Description and Identification: The unground product occurs as white to orange-brown, spheroidal tears of varying size or in angular fragments. Gum arabic is also available commercially in the form of white to yellowish-white flakes, granules, powder, roller dried, or spray-dried material. One gram dissolves in 2 mL of water, forming a solution that flows readily and is acid to litmus, insoluble in ethanol.
3. Purity:
  - (1) Loss on drying: Not more than 15% (105°, 5 h) for granular and not more than 10% (105°, 4 h) for spray dried material.
  - (2) Total ash: Not more than 4%.
  - (3) Acid-insoluble ash : Not more than 0.5%.
  - (4) Acid-insoluble matter : Not more than 1%.
  - (5) Starch or dextrin: Boil a 1 in 50 solution of the sample, cool and add a few drops of Iodine T.S. No bluish or reddish colour should be produced.
  - (6) Tannin-bearing gums: To 10 mL of a 1 in 50 solution of the

sample, add about 0.1 mL of ferric chloride TS. No blackish colouration or blackish precipitate should be formed.

(7)Microbiological criteria:

*Salmonella* spp.: Negative.

*E. coli*: Negative.

(8)Arsenic: Not more than 3 mg/kg.

(9)Lead: Not more than 2 mg/kg.

(10)Mercury: Not more than 1 mg/kg.

(11)Cadmium: Not more than 1 mg/kg.

### Article 3

This Standard shall be implemented from the date of promulgation.