Draft of Specifications Standard for Gum Arabic as Food Raw Material

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°C, 5 h) for granular and not more than 10% (105°C, 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 T.S. 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.