

## Gum Arabic

The Sudanese Authority for Specification and Measurements is a scientific overseer which controls products according to national standard with the help of technically specialized committees in co-operation with other well connected agencies.

The following specifications were set by the Sudanese Standard and Specifications and measurements through the Technical Committee of Seed oil extracts and concentrates work programmes.

### 1. Definition:

Cleaned gum is the dry exudate obtained from the stems and branches of *Acacia seyal* var. *seyal*, Del. (fam. *Leguminosae*). It consists mainly of salts of an acidic arabino-galactan protein complex which on hydrolysis yields galactose, arabinose, rhamnose, glucuronic acid and 4-O-methoxy glucuronic acid.

### 2. Description:

Gum talha is a yellowish-brown solid. On drying, its nodules and tears are brittle and can easily break into siftings and dust. It is odourless and has a stringent taste. It may contain extraneous materials such as sand and pieces of bark.

### 3. Functional Uses:

Emulsifier, stabilizer, thickening and encapsulating agent and some other general and technical applications.

### 4. Chemical Characteristics:

1. Loss on drying: Not more than 15%.
2. Total Ash: Not more than 15%.
3. Specific Rotation:  $-22^{\circ}$  to  $-34^{\circ}$ .
4. Nitrogen Content: 1.58% to 2.7%.
5. Protein Content: Not more than 3mg/kg.
6. Arsenic Content: Not more than 3mg/kg.
7. Lead Content: Not more than 10mg/kg.

## **5. Physical Characteristics**

It is highly soluble in water, gives up to 50% solution and insoluble in ethanol.

## **6. Packaging:**

Jute, polypropylene or polyethylene lined multi- layer paper bags of 25 - 50kg capacity, or as agreed, upon, between customer and supplier.

## **7. Labelling:**

Should be clear and indicates:

- Product Name.
- Product Grade.
- Producing Company.
- Net Weight.
- Season of Production.
- Storage Conditions.
- Country of Origin.

## **8. Storage:**

Should be stored under clean, cool and dry conditions, in a properly constructed warehouse.

## **9. Shelf Life:**

Unlimited under the appropriate storage conditions mentioned in 'Storage'.

## **10. Testing:**

Sampling and Testing should be carried out according to Sudanese standards SDS No. 145, 146, 147, 148, 149, 152, 153, 154, 155, 157, 158 and 528.