

**PHYSICAL & CHEMICAL EVALUATION OF GUAR GUM**

**Practical - 34**

Date: .../.../.....

**PHYSICAL AND CHEMICAL EVALUATION OF GUAR GUM****Aim:** To perform the physical and chemical tests for evaluation of Guar gum.**Reference:**.....  
.....**Requirements:**.....**Synonyms:** Guar gum, Jaguar gum and Guar flour.**Biological Source:** Guar gum is a seed gum produced from the powdered endosperm of the seeds of **Cyamopsis tetragonolobus Linn.****Family:** Leguminosae.**Physical Characteristics:**

S. No.	Physical Character	Observation
1.	Colour	
2.	Odour	
3.	Taste	
4.	Solubility	

**Chemical tests/Identification tests:**

S. No	Test	Observations
1.	On being treated with iodine solution (0.1 N).	
2.	When Guar gum treated with Ruthenium Red solution.	
3.	A 2% solution of lead acetate with guar gum (distinction from sterculia gum and acacia).	
4.	A solution of guar gum (0.25 g in 10 ml of water) when mixed with 0.5 ml of benzidine (1% in ethanol) and 0.5 ml of hydrogen peroxide (distinction from gum acacia).	
5.	Aqueous solution of guar gum with small amount of borax.	

**Precautions:**

1. Avoid direct contact with any hazardous chemical.
2. Do not mouth pipette.

**Uses:**

- Guar gum is used as a protective colloid, a binding and disintegrating agent, emulsifying agent, bulk laxative, appetite depressant and in peptic ulcer therapy.
- Industrially, it is used in paper manufacturing, printing, polishing, textiles and also in food and cosmetic industries.
- Guar gum is extensively used as flocculent in ore-dressing and treatment of water.

**Report:** From the above Physical characters and chemical test the given crude drug was identified as

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## Questions Bank

1. What is the solubility of Guar gum?
2. Write the botanical name of Guar gum.
3. What are the uses of Guar gum?
4. Write the name of chemical constituent of Guar gum.
5. What happen when guar gum treated with iodine solution (0.1 N).
6. Write a note on physical characters of Guar gum.
7. What is appetite depressant?
8. What are the protective colloids?
9. What happen when guar gum reacts with borax.
10. Paste the one marketed preparation of Guar gum.