PHYSICAL & CHEMICAL EVALUATION OF GELATINE

Practical - 35

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

PHYSICAL AND CHEMICAL EVALUATION OF GELATINE

Aim: To perform the physical and chemical tests for evaluation of Gelatine.

Reference:……..

……..……..……..……..

Requirements:…….....……

Biological Source: Gelatin is a protein derivative obtained by evaporating an aqueous extract made from bones, skins, and tendons of various domestic animals **Ovis aries.**

Family: Bovidae

Physical Characteristics:

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

Chemical tests/Identification tests:

S. No	Test	Observations
1.	**Biuret reaction:** To alkaline solution of a gelatin protein (2 ml), a dilute solution of copper sulphate is added.	
2.	**Xanthoproteic reaction:** *Gelatin* Proteins when warmed with concentrated nitric acid.	
3.	Gelatin protein with picric acid.	
4.	On heating gelatin (1 g) with soda lime.	
5.	**Millon's reaction:** Millon's reagent (mercuric nitrate in nitric acid containing a trace of nitrous acid) on addition to a gelatin protein solution.	

Precautions:

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

Uses:

- Gelatin is used to prepare pastilles, pastes, capsules, pill-coatings, gelatin sponge; as suspending agent, tablet binder, coating agent, as stabilizer, thickener and texturizer in food.
- For manufacturing rubber substitutes, adhesives, plastic compounds, artificial silk, photographic plates and films, light filters for mercury lamps, clarifying agent.
- For inhibiting crystallization in bacteriology, for preparing cultures and as a nutrient.

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

Questions Bank

1. What is the solubility of Gelatine?
2. Write the botanical name of Gelatine.
3. What are the uses of Gelatine?
4. Write the name of chemical constituent of Gelatine.
5. What are the adhesives?
6. Write a note on physical characters of Gelatine.
7. What is bacteriology?
8. What is the clarifying agent?
9. What happen when Gelatine reacts with sodalime.
10. Paste the one marketed preparation of Gelatine.