

PHYSICAL & CHEMICAL EVALUATION OF ASAFOETIDA

Practical -26

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

PHYSICAL AND CHEMICAL EVALUATION OF ASAFOETIDA

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

Reference:.....
.....

Requirements:.....

Synonyms: Devil's drug, Hing, Gum Asafoetida

Biological source: It is an oleo-gum resin of living root and rhizomes of **Ferula asafoetida** etc

Family: Umbelliferae

Physical Characteristics:

S. No.	Physical Character	Observation
1.	Colour	
2.	Odour	
3.	Taste	
4.	Shape	
5.	Size	
6.	Tears	
7.	Mass	
8.	Solubility	
9.	Extra features	

Chemical tests/Identification tests:

S. No	Test	Observations
1.	Fractured surface is treated with sulphuric acid now washed with water.	
2.	Asafoetida treated with sulphuric acid.	
3.	Fractured surface treated with 50% nitric acid.	
4.	Asafoetida triturated with water.	
5.	10 ml alcoholic extract of drug + conc HCl + phloroglucinol few drops.	
6.	Asafoetida on burning	
7.	Combined Umbelliferone test: 0.5 g drug + sand + 3 ml HCl +3 ml water and triturated for several minutes and boil, Add strong ammonia solution to the filtrate.	

Precautions:

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

Uses:

- It is used as a carminative, laxative, antispasmodic, Nervine tonic, anthelmintic and digestive.
- It is used to treat flatulence colic, constipation, asthma, bronchitis, whooping cough and epilepsy.
- It is also used as flavouring agent in sauces, pickles and curries.

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

_____.

Questions Bank

1. What is the colour of Asafoetida?
2. Write the biological source of Asafoetida.
3. What are the uses of Asafoetida?
4. Write a note on solubility of Asafoetida.
5. What happen when Asafoetida treated with sulphuric acid?
6. Define the combined umbelliferone test.
7. What happen when Asafoetida burning occur?
8. Explain reaction of Asafoetida with 50% nitric acid.
9. Define how Asafoetida used as Antispasmodic.
10. Asafoetida used as laxative, explain.