

ORGANIC CHEMISTRY TEST FLOWCHART

Version 1.0

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This flowchart is only intended to help in the identification of a given unknown organic compound, as applicable in CBSE Class 12 chemistry practicals. It is NOT intended to be a list of all possible tests required to be done for the identification of a compound.

Proceed **in order**. If a step is negative, only then go on to the next step.

1. **Cerric Ammonium Nitrate (CAN) test:** Add cerric ammonium nitrate ¹ to sample. *Appearance of red / pink colour means it is an **alcohol**.*
2. **Blue litmus test:** Add blue litmus solution to sample. *If test is positive (blue litmus turns red), then it implies phenol or carboxyl acid.*
 1. **Ferric Chloride test:** Add ferric chloride to sample. *If hydrogen gas is liberated (effervescence is observed), then it is a **phenol**.*
 2. **Sodium Bicarbonate test (optional):** Add sodium bicarbonate to sample. *Brisk effervescence (of carbon dioxide) implies it is a **carboxylic acid**.*
3. **Fehlings's test:** Take 1 mL each of Fehling's solution A ² and Fehling's solution B ³ in a test tube. Add 4-5 drops or a pinch of sample. Warm test tube in water bath for 4-5 minutes. *Appearance of red precipitate means it is an **aldehyde**.*
4. **Solubility test:** If sample is soluble in concentrated HCl, then it is an **amine**.
5. Else, it is a **ketone**.

1 $(\text{NH}_4)_2\text{Ce}(\text{NO}_3)_6$

2 CuSO_4 (copper sulphate)

3 Rochelle salt (sodium potassium tartarate tetrahydrate)