

GOVT. POLYTECHNIC, LOHAGHAT

PHARMACY - FIRST YEAR

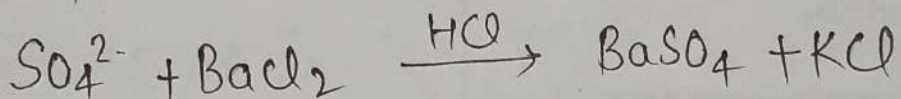
SUB - PHARMACEUTICAL CHEMISTRY - I

CHAPTER - LIMIT TEST

LIMIT TEST OF SULPHATE →

PRINCIPLE →

Limit test of Sulphate is based on the reaction of soluble sulphate with Barium chloride in presence of dilute hydrochloric acid to form barium sulphate which appears as solid particles (turbidity) in the solution.

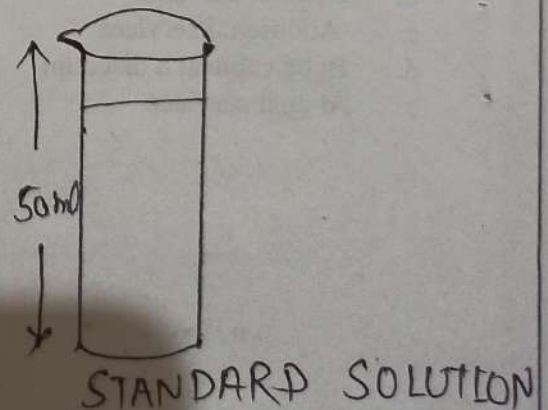
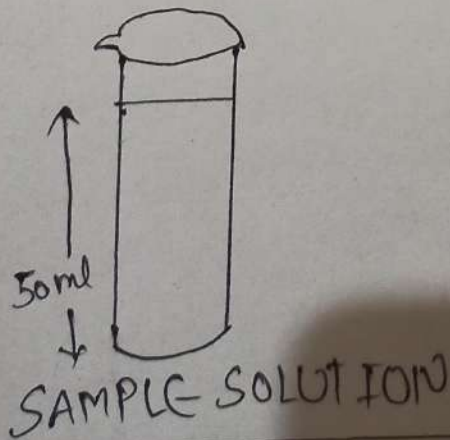


Requirement → Nessler cylinder
Glass rod
Measuring cylinder
Pipette
Dropper
Rubber stopper

Chemical Requirement → 1) Hydrochloric acid (HCl)
2) BARIUM SULPHATE Reagent (BaSO₄)
3) 0.1089% w/v solution of Potassium Sulphate (K₂SO₄)

Procedure →

Test Sample	Standard Compound
1) Specific weight of Compound dissolve in water or Solution is prepared as directed in the Pharmacopoeia and Transferred in Nessler Cylinder	Take 1 ml of 0.1089% w/v Solution of Potassium Sulphate (KCl) in Nessler Cylinder
2- Add 2 ml of dilute Hydrochloric (HCl)	Add 2 ml of dilute hydrochloric acid (HCl)
3 Dilute to 45 ml in Nessler cylinder with water	Dilute to 45 ml in Nessler cylinder with water
4- Add 5 ml of barium Sulphate Reagent ($BaSO_4$)	Add 5 ml of Barium Sulphate Reagent ($BaSO_4$)
5 Keep aside for 5 Minute	Keep aside for 5 Minute
6 Observe the turbidity	Observe the turbidity



Observation -

The turbidity produced in Sample Solution should not be greater than Standard Solution.

If turbidity produced in Sample Solution is less than the ^{Std} turbidity solution, the Sample will pass the limit test of Sulphate.