Limit test for sulphate:

**Principle and procedure involves in limit test for sulphate.**

**Principle:**

Limit test for sulphate depends upon the interaction of sulphate with barium chloride in the presence of hydrochloride acid**.**

Bacl2 +Na2 SO2 (Hcl)→BaSO4 +2Nacl

**Procedure: test solution**

* Take a specific quantity o f sample in a Nessler’s cylinder and dissolve in 10ml of distilled water as prescribed in the IP.
* Add 2ml of diluted hydrochloric acid..
* Diluted to 45ml in Nessler’s cylinder**.**
* Add 5ml of barium sulphate reagent.
* Keep aside for 5min.
* Observe the Turbidity against a black background.

**standard solution**

* Take 1ml of 0.1089% W/V of potassium sulphate in Nessler’s cykinder.
* Add 2 ml of diluted hydrochloric acid.
* Diluted to 45ml in Nessler’s cylinder.
* Add 5ml of barium sulphate reagent.
* Keep aside for 5min.
* Observe the Turbidity against a black background**.**
* The turbidity produced in the test solution should not be greater than that produce in the standard solution.

**Importance of limit test**

1. Limit test is generally carried out to determine the inorganic impurities present in the compound and compare it with standard.
2. It involves to check the purity of given substance by comparison of turbidity or color with standard.