2.2.1 Limit test for chlorides

The limit test for chlorides is provided to demonstrate that the content of chlorides does not exceed the limit given in the individual monograph in terms of micrograms of chloride ions per gram of the substance being tested. The standard solution against which the comparison of opalescence is made contains 250 µg of Cl^-.

Recommended procedure

Carry out the test in matched flat-bottomed comparison tubes of transparent glass of about 70 mL capacity and about 23 mm internal diameter bearing a 45-mL and a 50-mL mark. Nessler cylinders complying with the above dimensions are suitable. The expression "matched tubes" means tubes that are matched as closely as possible in internal diameter and in all other respects.

Prepare a solution as specified in the monograph, transfer to a comparison tube, dilute to 50 mL with water and add 1 mL of silver nitrate (40 g/l) TS. Stir immediately with a glass rod, and set aside for 5 minutes, protected from direct sunlight. The opalescence produced is not greater than the similarly prepared standard opalescence when viewed down the vertical axis of the tube in diffused light against a black background.

Standard opalescence

Measure 5.0 mL of hydrochloric acid CITS and 10 mL of nitric acid (~130 g/l) TS into a comparison tube. Dilute to 50 mL with water, and add 1 mL of silver nitrate (40 g/l) TS. Stir immediately with a glass rod and set aside for 5 minutes, protected from direct sunlight.