

## B. GENERAL TESTS

### Calcium Salt Determination

The Calcium Salt Determination Test is designed to determine the quantity of calcium salts contained in a sample using disodium ethylenediaminetetraacetate (EDTA). There are a direct titration method (Method 1) using the EDTA solution, and a back-titration method (Method 2) using a zinc acetate solution after adding an excessive amount of EDTA.

**Procedure** Unless otherwise specified, proceed by Method 1 or Method 2 as appropriate.

**Method 1** Measure exactly 10 ml of the specified test solution, add 50 ml of water and 10 ml of potassium hydroxide solution (1 : 10), and allow to stand for 1 minute. Add about 0.1 g of NN indicator, and titrate immediately with 0.05 mol/l EDTA until the red-purple color of the solution completely disappears and a blue color develops.

**Method 2** Measure exactly 20 ml of the specified test solution, add 25 ml of 0.02 mol/l EDTA, accurately measured, add 50 ml of water and 5 ml of ammonia - ammonium chloride buffer (pH 10.7), and allow to stand for 1 minute. Add 0.025 g of eriochrome black T - sodium chloride indicator, and titrate immediately the excess EDTA with 0.02 mol/l zinc acetate until the blue color of the solution changes to blue-purple. Perform a blank test in the same manner as the sample.