

B. GENERAL TESTS

Sulfate Limit Test

The Sulfate Limit Test is designed to determine the allowable limit of sulfate contained in a sample.

Hereinafter in the Monographs, such a specification as “ not more than 0.024% as SO_4 (1.0 g, Control solution 0.005 mol/l sulfuric acid 0.50 ml) ” indicates that when determined by weighing 1.0 g of the test substance as the sample and proceeding as directed in the following procedure, using 0.50 ml of 0.005 mol/l sulfuric acid in the preparation of the control solution, the sulfate content of the substance is not more than 0.024% as SO_4 .

Procedure (1) Preparation of Test Solution and Control Solution Unless otherwise specified, proceed directed below.

Test Solution When the quantity of the sample is only specified, measure the specified quantity of the sample, transfer into a Nessler tube, and dissolve in about 30 ml of water. Neutralize it with diluted hydrochloric acid (1 : 4) if the solution is alkaline. Add 1 ml of diluted hydrochloric acid (1 : 4) and water to make 50 ml.

When the test solution is prepared using a sample solution, transfer the specified quantity of the sample solution into a Nessler tube, add 1 ml of diluted hydrochloric acid (1 : 4) and water to make 50 ml.

Control Solution Measure the specified quantity of 0.005 mol/l sulfuric acid, and transfer into another Nessler tube. Add 1 ml of diluted hydrochloric acid (1 : 4) and water to make 50 ml. If the test solution is not clear, filter both the test solution and control solution solutions under the same conditions.

(2) Test Unless otherwise specified, add 2 ml of barium chloride solution (3 : 25) to the test solution and the control solution, mix thoroughly, and allow to stand for 10 minutes. Observe both Nessler tubes from above and from the side against a black background, and compare the turbidity. The turbidity developed in the test solution is not thicker than that of the control solution.