

D. MONOGRAPHS

Ammonia

NH₃

Mol. Wt. 17.03

ammonia

[7664-41-7]

Description Ammonia is a colorless gas having a characteristic odor.

Identification (1) Bring a glass rod wetted with hydrochloric acid close to Ammonia. White fumes are evolved.

(2) Ammonia changes the color of a red litmus paper wetted with water to blue.

Purity Perform the following tests, using a test solution prepared by saturating water at 20 °C with Ammonia.

(1) Sulfur compounds Add 5 ml of silver nitrate - ammonia TS to 5 ml of the test solution. Heat at 60 °C for 5 minutes while shaking well in a dark place. No brown color develops.

(2) Readily oxidizable substances Add 7 ml of water to 3.0 ml of the test solution. Pour gradually 30 ml of diluted sulfuric acid (1 : 20), shake, and add 0.10 ml of 0.02 mol/l potassium permanganate. The pink color of the solution does not disappear.