

## PHARMACEUTICAL CHEMISTRY

### EXPERIMENT NO -22

**OBJECT:** To perform assay of ammonium chloride IP 1996.

#### REFERENCE

Parle A., "Pharmaceutical chemistry I Laboratory Manual", CBS Publishers and distributors Pvt. Ltd, Ed 1<sup>st</sup>, 2008, pp 86-87.

#### STANDARDS

Ammonium Chloride contains not less than 99.00% and not more than 100.5% of  $\text{NH}_4\text{Cl}$

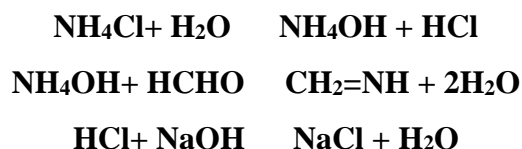
#### REQUIREMENTS

**Chemical required:** Ammonium chloride, formaldehyde solution, potassium iodide, 0.1 M sodium hydroxide solution.

**Apparatus required:** conical flask, burette, pipette, beaker, etc.

#### THEORY

This is an alkalimetric titration.



#### PROCEDURE

Weigh 0.1 gm of  $\text{NH}_4\text{Cl}$  dissolve in 20 ml of  $\text{H}_2\text{O}$  and add a mixture of 5 ml of previously neutralized formaldehyde solution and 20 ml water. After 2 minutes the contents of the conical flask is titrated against 0.1N NaOH using phenolphthalein as indicator. End point is the appearance of permanent pale pink colour. Each ml of 0.1N NaOH is equivalent to 0.005349 gm of  $\text{NH}_4\text{Cl}$ .

#### RESULT:

The percentage purity of ammonium chloride in the given sample is \_\_\_\_\_ % w/w.