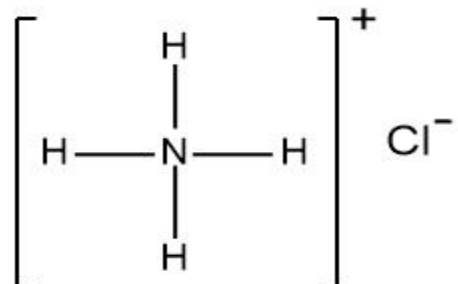
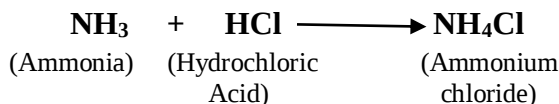


Ammonium chloride: (NH₄Cl)**Synonyms:** Sal ammoniac**Molecular weight:** 53.49 g/mol**Standards:** It is having not less than 99.5% of ammonium chloride which is calculated with the reference to substance dried over silica.**Properties:**

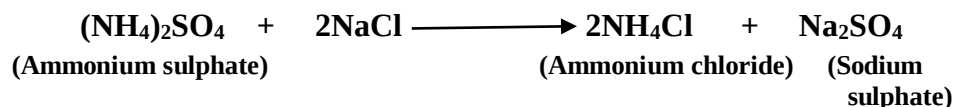
- **Appearance:** it is fine white crystalline powder.
- **Odour:** Odourless
- **Taste:** Cooling saline taste.
- **Solubility:** Soluble in water and alcohol.
- **Density:** 1.527 g/cm³

**Preparation:**

1. It is prepared by neutralizing ammonia with HCl. The solution is evaporated and dried and ammonium chloride is obtained.

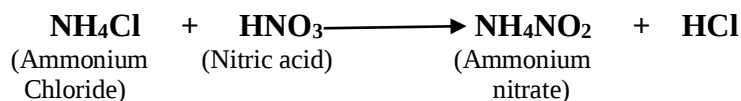


2. Ammonium chloride is prepared by heating ammonium sulphate and sodium chloride.

**Assay:** Ammonium chloride was assayed by precipitation titration by volhard's method.

- Weigh accurately about 0.2gm of ammonium chloride that is dissolved in 40mL of water.
- The above solution is acidified with 3mL of HNO₃. Shake well
- Titrate the solution with 10N ammonium thiocyanate.
- Ferric ammonium sulphate is used as an indicator.

Each mL of 0.1N nitric acid is equivalent to 0.005349 gm of ammonium chloride.

**Uses:**

- Ammonium chloride is used as an expectorants as well as an acidifier.
- It acts in maintaining acid base equilibrium of body fluid.
- It also acts as diuretic.
- Ammonium chloride is also used in cough preparations.

- It acts as a mild expectorant and diaphoretic when administered in small doses.

Storage: It must be stored in a tightly closed container.