Unit 19: Nitrogen compounds

Subunit 19.1: Primary amines

Topical Question No: 1

19 Methylamine, CH₃NH₂, has very similar chemical properties to ammonia, NH₃.

Methylamine reacts with hydrogen chloride to form a white crystalline salt, methylammonium chloride.

$$CH_3NH_2 + HCl \rightarrow CH_3NH_3^+Cl^-$$

A sample of methylammonium chloride is heated with aqueous sodium hydroxide.

What are the products?

- A ammonia, sodium chloride and water
- **B** ammonia, sodium hydrogencarbonate and sodium chloride
- C methylamine, hydrogen chloride and water
- **D** methylamine, sodium chloride and water

Topical Question No: 2

- 19 Which reagent, when mixed and heated with ammonium sulfate, liberates ammonia?
 - A aqueous bromine
 - B dilute hydrochloric acid
 - **C** limewater
 - **D** potassium dichromate(VI) in acidic solution

Answer Key

- 1. Error
- 2. Error