

Exercise 9.44 – Condensation reactions and amides

Q944-01 What is the name of the monosubstituted amine with three carbon atoms?

Q944-02 What is the name of the disubstituted amine with two methyl groups?

Q944-03 What is the organic product when butanamide is hydrolysed by warming with dilute sodium hydroxide solution?

Q944-04 What is the organic product when propanamide is hydrolysed by warming with dilute hydrochloric acid solution?

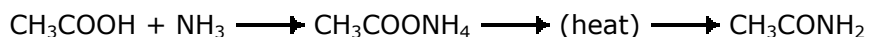
Q944-05 Many pharmacologically active substances, such as alkaloids, contain amine groups. Which of the following compounds could be used to produce a soluble salt from an alkaloid?

- A. NaOH
- B. H₂SO₄
- C. NH₃
- D. NaCl

Q944-06 What is the product when propanonitrile is reduced using hydrogen over a nickel catalyst at 150°C.

Q944-07 Which reagent reacts with bromoethane making ethylamine?

Q944-08 Consider the following reaction scheme:



What will be the final product if aminoethane (ethylamine) is used instead of NH₃?

- A. CH₃CONHCH₂CH₃
- B. CH₃CONHCH₃
- C. CH₃CONH₂
- D. CH₃CONH₂CH₂CH₃

Q944-09 Which of the following is an amine?

- A. CH₃CH₂NH₂
- B. CH₃CONH₂
- C. -[CH₂CONHCH₂CO]_n-
- D. CH₃CH₂C≡N

Q944-10 Which of the following compounds is the strongest (least weak) base?

- A. CH₃CH₂NH₂
- B. CH₃CONH₂
- C. -[CH₂CONHCH₂CO]_n-
- D. CH₃CH₂C≡N