

Chemguide – questions

AMIDES: HYDROLYSIS

1. The reaction between an amide and water is too slow to be useful, and so to hydrolyse ethanamide, for example, it is usually heated with either a dilute acid such as hydrochloric acid or with sodium hydroxide solution.
 - a) If you *did* hydrolyse ethanamide by reacting it with water alone, what would the product(s) be?
 - b) If you hydrolysed it by heating it with dilute hydrochloric acid, what would the product(s) be?
 - c) Write the overall equation for the reaction involving dilute hydrochloric acid.
 - d) If you hydrolysed it by heating it with sodium hydroxide solution, what would the product(s) be?
 - e) Write the overall equation for the reaction involving sodium hydroxide solution.
2.
 - a) How would you test for an amide using dilute sodium hydroxide solution?
 - b) Why would you have to be cautious in interpreting the results of this test?