Acids and Bases

Sodium hydroxide and hydrochloric acid react to produce sodium chloride and water.

Name the type of reaction described.

Neutralisation [1 mark]

(1 mark)

Explain, in terms of ions and molecules, what happens when **any** acid reacts with **any** alkali.

Hydrogen ions/H⁺ in the acid [1 mark]

React with hydroxide ions OH in the alkali [1 mark]

To produce water [1 mark]

You could also write, for all three marks:

$$H^+(aq) + OH^-(aq) \rightarrow H_2O(1)$$

(3 marks)

1 (a) Ammonium nitrate is a useful substance made by a similar reaction to the above. Name the acid that would be used to form ammonium nitrate.

Nitric acid [1 mark]

(1 marks)

Remember hydrochloric acid produces chlorides, nitric acid produces nitrates, sulfuric acid produces sulfates)

(Total 5 marks)