

## Practical 1 – Chapter 5

### Enthalpy change of neutralisation

The aim of this experiment is to determine the enthalpy change of neutralisation for various combinations of acids and alkalis.

#### Safety

- 1.00 mol dm<sup>-3</sup> sodium hydroxide is corrosive.
- Wear eye protection.

#### What to do

- 1 Pipette 25.0 cm<sup>3</sup> of 1.00 mol dm<sup>-3</sup> hydrochloric acid into a polystyrene cup. The polystyrene cup will be your calorimeter.
- 2 Measure out 30.0 cm<sup>3</sup> of 1.00 mol dm<sup>-3</sup> sodium hydroxide in a measuring cylinder (**Care!**).
- 3 Measure the temperature of the acid and of the alkali.
- 4 Add the alkali to the acid, stir rapidly and measure the maximum temperature reached.
- 5 The experiment should be repeated and then the same procedure carried out with the other acids and alkalis available.