

# Edexcel Chemistry A-level

## Practical 2

Preparation of a Standard Solution  
and Titration.



## Aim

Prepare a **standard solution** from a solid acid salt and find the concentration of NaOH by **titration** using this standard solution.

## Method

1. Weigh out the mass of required acid salt and transfer to a clean beaker.
2. Add 50 cm<sup>3</sup> of distilled water to the weighed out solid and stir with a glass rod to dissolve.
3. Using a funnel, transfer to a graduated volumetric flask by pouring it down the glass rod. Wash the rod into the graduated volumetric flask and fill with distilled water to the 250 cm<sup>3</sup> mark.
4. Stopper the flask, then mix thoroughly by inverting and shaking vigorously.

## Errors

- Be careful not to **lose any solid** when transferring from the weighing bottle to the beaker.
- When weighing out the solid, **weigh by difference** and then calculate the mass of a solid in a beaker:  
***mass of (weighing bottle + beaker) - (mass of the bottle after emptying solid)***
- General titration procedure is described in **CP3**. Find the concentration of NaOH by titrating it with a solution of the acid prepared in this experiment.

## Key Points

- Acid must have a **high molar mass** (to reduce weighing errors).
- Sample must be **pure**.
- Sample must not be **air sensitive** or react with air components (e.g. by absorbing CO<sub>2</sub> or H<sub>2</sub>O).

