AS and A-level Chemistry practicals: Equipment set up

Practical 10a: Preparation of a pure organic solid and test of its purity
Use of a Buchner funnel

• The sample is filtered under pressure using a Buchner funnel.
• The long rubber tube connects to a side-arm conical flask, the wide rubber tube connects to a water supply and the water creates suction.
• The filter paper used in the Buchner should be of the correct size to give a good seal on the base and should be dampened before use to create a good filtration seal.
Use of a Buchner funnel
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Practical 10b: Preparation of a pure organic liquid
Setting up the reflux apparatus

- The flask and the condenser should be clamped securely and the water should flow upwards through the condenser.
- Check the condenser for air bubbles and the water connections before attaching the flask.
Setting up the reflux apparatus
Separating funnel

- The funnel needs to have a stopper (either glass or plastic) which fits securely and can be released to allow the escape of gas.
- The funnel need to be inverted several times and the gas released after each inversion.
- It can then be clamped and the layers left to settle out.
Distillation apparatus
Distillation apparatus

- The flask should be placed in beaker of water to create a hot water bath and not heated directly.
- The mass of the clean dry collection vessel should be recorded to two or three decimal places before the distillation begins.