# AQA Chemistry A-Level

## RP5 - Distillation of a reaction product

Flashcards

# What is distillation?

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Distillation is a technique where a liquid is heated to create a vapour which is cooled by a condenser, causing the gas to condense into a liquid and drip into a separate flask. The species separate due to relative volatilities and boiling points.

# What equipment is used for distillation?

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Distillation is either done with:

- Semi-micro distillation apparatus
- Quickfit apparatus (pear-shaped or round-bottomed flask with a liebig condenser, still head, stopper, receiver adaptor, fitted with a thermometer and collection vessel).

What does a diagram of Quickfit apparatus set up for distillation look like?

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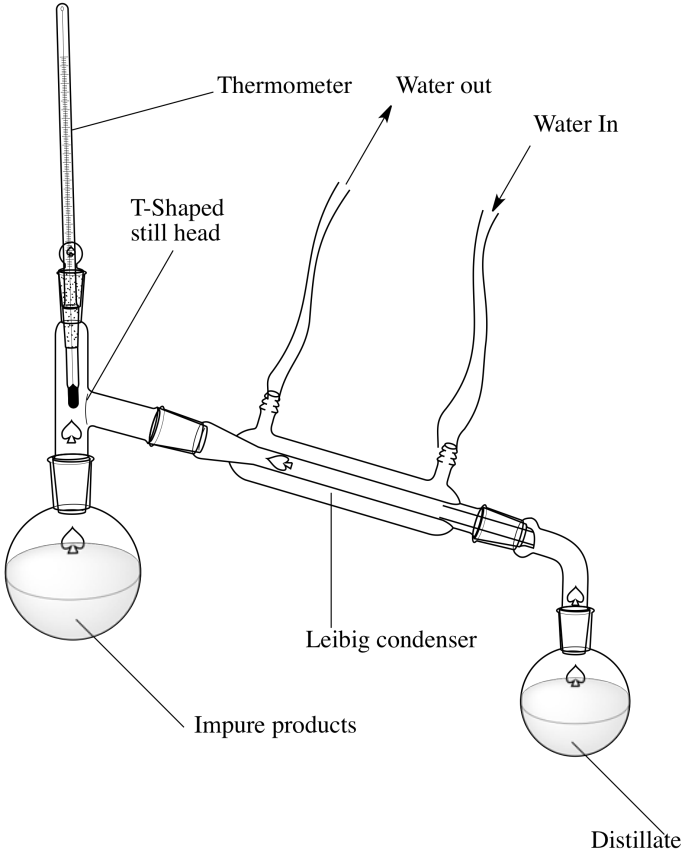

Oxidising agents are often used in distillation. What is an oxidising agent?

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- Oxidising agents oxidise other chemicals by receiving electrons from them.
- Oxidising agents are in turn reduced.

# Why are anti-bumping granules used in distillation?

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To allow smooth boiling- preventing bubbles caused by vapour to cause upwards splashing in the flask.

# How do you isolate a liquid product?

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You can use a separating funnel to isolate the organic layer from the aqueous layer. Shake the flask. Allow the layers to separate. Then open the tap and run off one layer into a separate container.

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| Hazard | Risk | Control |
|---|---|---|
| Bunsen burner | Burns. | Keep away from flammable chemicals and away from the edge of the desk. |
| Chemicals | - May be an irritant or corrosive, causing irritation to skin, eyes, lungs.<br>- May be toxic<br>- May be Flammable. | Handle with care and while wearing gloves. Wear eye protection. Keep away from the edge of the desk and from an open flame. Don't ingest. |
| Glassware i.e beakers, test tubes. | May break and cut you. | Handle with care. Keep away from edge of the desk. |