

AQA Chemistry A-Level

RP5 - Distillation of a reaction product

Flashcards

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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:

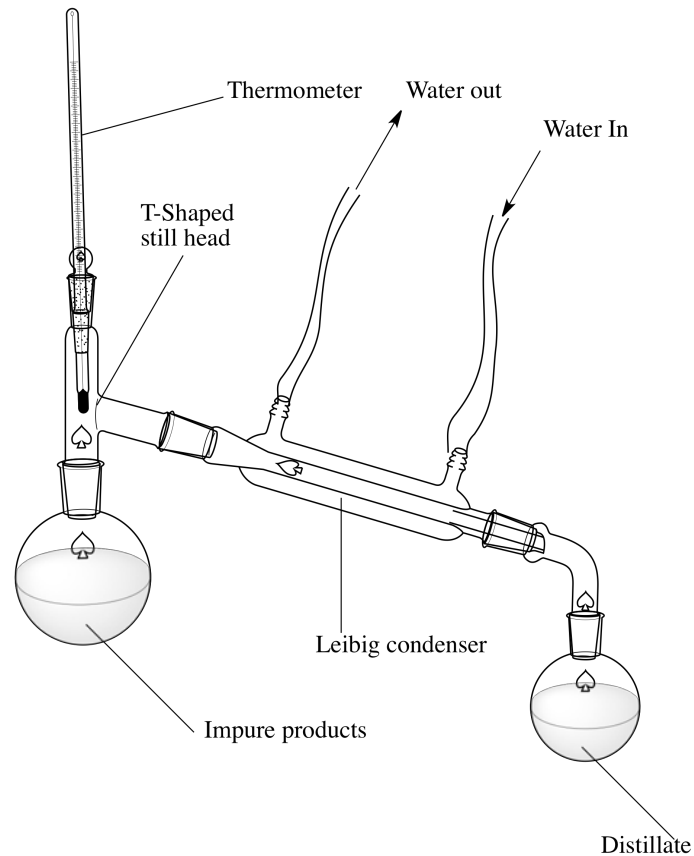
- Semi-micro distillation apparatus
- Quickfit apparatus (pear-shaped or round-bottomed flask with a liebig condenser, still head, stopper, receiver adaptor, fitted with a thermometer and collection vessel).



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?



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

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



Why are anti-bumping granules used in distillation?



Why are anti-bumping granules used in distillation?

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



How do you isolate a liquid product?



How do you isolate a liquid product?

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.



What are some common potential hazards and risks in the laboratory?



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Hazard	Risk	Control
Bunsen burner	Burns.	Keep away from flammable chemicals and away from the edge of the desk.
Chemicals	<ul style="list-style-type: none">- May be an irritant or corrosive, causing irritation to skin, eyes, lungs.- May be toxic- 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.

