

Cambridge (CIE) A Level Chemistry



Your notes

Esters

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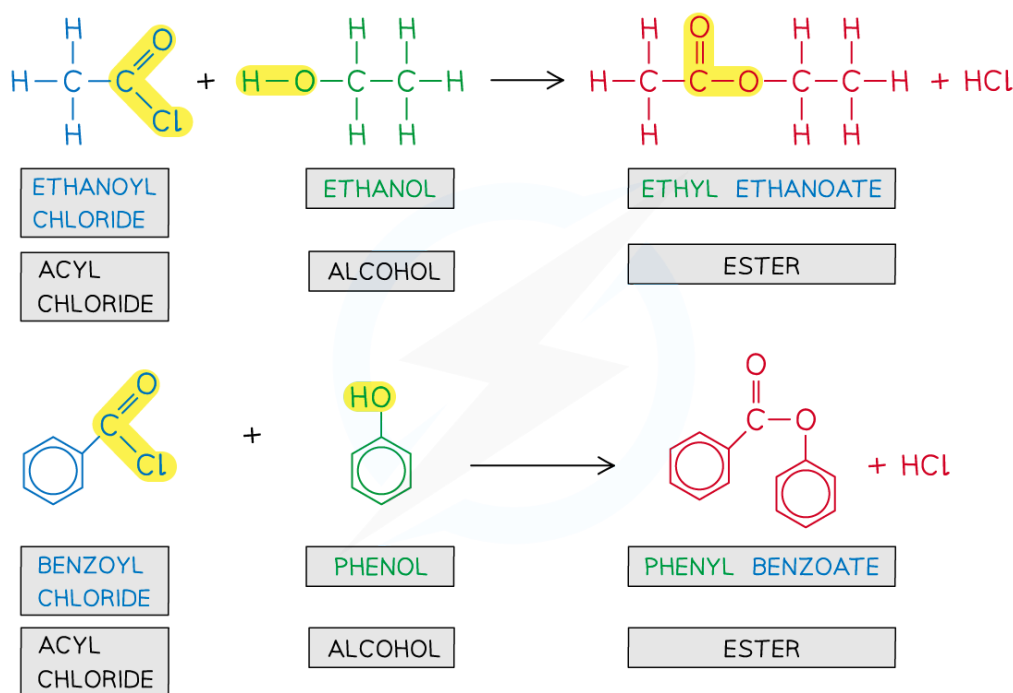
* Producing Esters



Production of Esters by Reacting Alcohols With Acyl Chlorides

- **Esters** are organic compounds with an -COR functional group
- They have **characteristic smells** and are used in perfumes, cosmetics and as solvents
- Esters can be prepared from the **condensation reaction** between alcohols and carboxylic acids
 - This is also called an **esterification reaction**
- A more effective way of preparing esters is from the condensation reaction between alcohols and **acyl chlorides** instead
- Unlike the reactions with carboxylic acids, acyl chlorides are **more reactive** (so the reactions happen **faster**) and their reactions go **to completion** (so no equilibrium mixture is formed and the yield of the ester is maximum)
- Examples of esterification reactions include:
 - Formation of **ethyl ethanoate** from **ethanol** and **ethanoyl chloride**
 - Formation of **phenyl benzoate** from **phenol** and **benzoyl chloride**

Formation of esters from the reaction of alcohols with acyl chlorides



The first part of the ester name comes from the alcohol and the second part of the ester name comes from the acyl chloride



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