

Esters

Chemistry

Formation, hydrolysis and where they occur.

Esterification

- Carboxylic acid + alcohol
- Concentrated H_2SO_4 catalyst
- Reversible; equilibrium
- Remove water to drive it forward
- Named acid-part last: ethyl ethanoate

Hydrolysis

- Acid hydrolysis: reversible, gives acid + alcohol
- Alkaline hydrolysis: irreversible, gives salt + alcohol
- Alkaline goes to completion
- Saponification makes soap

THE DIFFERENCE THAT MATTERS

Alkaline hydrolysis is irreversible because the carboxylate salt formed cannot react back with the alcohol.

Naming: the alcohol part comes first, then the acid part as -oate.
Ethanol plus ethanoic acid gives ethyl ethanoate.