

Ethanol as a solvent

- dissolves many substances, including some that are insoluble in water

Biofuel (ethanol as a fuel)

- produced from plants (such as sugar cane, in some countries)
- + renewable
- + carbon-neutral
- decreases the amount of land available to grow food crops
- dependent on climate for sugar growth

Alcohols

- $C_nH_{2n+1}OH$

The microbial oxidation of ethanol to ethanoic acid

- occurs slowly
- leads to beer and wine 'going off' once exposed to air for a few days

Ethanoic acid

- CH_3COOH
- belongs to a homologous series called carboxylic acids

Infrared spectroscopy

- used to identify the presence of certain bonds in organic molecules, thereby indicating whether they may be alkanes, alkenes, alcohols or carboxylic acids