

Oils

Oils are unsaturated. Hardening of oils carried out by addition of hydrogen across the $C=C$. Ethene can be converted to ethane. Similarly oils can be converted to

fats by the use of hydrogen and nickel catalysts. Degree of unsaturation has decreased.

Diet

Fats and oils are important in the diet – they are a more concentrated source of energy than carbohydrates. Unsaturated fats are healthier- saturated fats are thought to cause heart disease. Valuable source of fat-soluble vitamins A and D preventing rickets

Structure

Fats and oils are esters made from glycerol and fatty acids. It has 3 $-OH$ groups attached. Can form 3 ester links to fatty acids. Known as triglycerides.

Triglycerides

No fat is a pure "triglyceride" rather fat and oils are a mixture of many. The three acid molecules to the glyceride molecule may or may not be identical. Ratio of 1 mole of glycerol to 3 moles of fatty acid. Complex examples of esters has 3 ester links, $-C-O-$

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