ISOMERS (II)

Many carbon compounds, other than hydrocarbons, have isomers.





- Alkanes and cycloalkanes are saturated; all the carbon bonds are single covalent bonds.
- Alkenes are unsaturated; the molecules contain a carbon to carbon double bond.
- When bromine (in solution) is added to an unsaturated hydrocarbon, the brown colour of the bromine 'disappears' i.e. the bromine is immediately decolourised.
- In this reaction, the carbon to carbon double bond breaks and the bromine atoms add themselves to either side of the double bond.

e.g. Propene with bromine



NAMING ALCOHOLS

ALCOHOLS

Isomerism can occur from only propanol onwards.

| e.g. | 3 | 2 | 1 | 1 | 2 | 3 |
|------|---------------------|---|---|-----------------|----|---|
| | $CH_3-CH_2-CH_2-OH$ | | | СН3 – СН2 – СН3 | | |
| | | | | | ОН | |

- 1. Select longest carbon chain.
- 2. Number the carbon atoms from end of carbon chain nearer to the functional group and indicate the position of the function group.
- 3. Name any branch(es) and indicate the position(s) of the branch(es) on the chain.

Some alcohols have more than one hydroxyl group.

CH2 – CH – CH2 | | | OH OH OH Propan-1 , 2, 3-ol