**Functional groups**

|  |  |  |  |
| --- | --- | --- | --- |
| **Molecule** | **Molecular**  **formula** | **Semi-structural and skeletal diagram** | **Structural diagram** |
| pentane  *alkane* |  |  |  |
| cyclohexane |  |  |  |
| hex-2-ene  *alkene* |  |  |  |
| cyclohexene |  |  |  |
| butan-1-ol  *alcohol* |  |  |  |
| 2-chlorobutane  *haloalkane* |  |  |  |
| butanoic acid  *carboxylic acid* |  |  |  |
| butan-2-amine  *amine* |  |  |  |
| butanamide  *amide* |  |  |  |
| butanal  *aldehyde* |  |  |  |
| butan-2-one  *ketone* |  |  |  |
| methylpropanoate  *ester* |  |  |  |
| benzene  *aromatic* |  |  |  |
| polyethene  *polymer* |  |  |  |

**Solutions**

|  |  |  |  |
| --- | --- | --- | --- |
| **Molecule** | **Molecular**  **formula** | **Semi-structural and skeletal diagram** | **Structural diagram** |
| pentane  *alkane* | C5H12 | CH3CH2CH2CH2CH3 |  |
| cyclohexane | C6H12 |  |  |
| hex-2-ene  *alkene* | C6H12 | CH3CHCHCH2CH2CH2CH3 |  |
| cyclohexene | C6H10 |  |  |
| butan-1-ol  *alcohol* | C4H10O | CH3CH2CH2CH2OH |  |
| 2-chlorobutane  *haloalkane* | C4H9Cl | CH3CH2CH2CH2Cl |  |
| butanoic acid  *carboxylic acid* | C4H8O2 | CH3CH2CH2COOH |  |
| butan-2-amine  *amine* | C4H11N | CH3CHNH2CH2CH3 |  |
| butanamide  *amide* | C4H10ON | CH3CH2CH2CONH2 |  |
| butanal  *aldehyde* | C4H8O | CH3CH2CH2CHO |  |
| butan-2-one  *ketone* | C4H8O | CH3COCH2CH3 |  |
| methylpropanoate  *ester* | C4H8O2 | CH3OCOCH2CH3 |  |
| benzene  *aromatic* | C6H6 |  |  |
| polyethene  *polymer* | CnH2n | -CH2- |  |