

Aldehydes and Ketones

Introduction $\rightarrow$ The class of organic chemical compounds denoted by the general structural formula $R-CHO$ are called as aldehydes, where R is hydrogen or a hydrocarbon radical that is either substituted or unsubstituted. Aldehydes are the initial products of ~~oxy~~ oxidation of primary alcohols. The functional group in aldehydes is $-CHO$ i.e. formyl group. The aldehyde group is always placed at the terminal carbon of chain. The class of organic compounds containing the carbonyl group consist of another important group called ketones. Alcohol is less volatile than the carbonyl compound because removal of alcohol resulting from the reduction of a cheap aldehyde or ketone is used as the oxidant.

Classification of Ketones $\rightarrow$

Depending upon the type of groups attached to the carbonyl carbon the ketones are classified as follows.

1) Simple or Symmetrical Ketones $\rightarrow$ In this type of, both alkyl groups attached to carbonyl carbon are alike, i.e. $R-R'$

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(2) Simple or Unsymmetrical Ketones $\Rightarrow$ In this type, both alkyl groups attached to carbonyl carbon are non-alike. i.e., $R + R'$.

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