An ether is a compound that has the following general structural formula.

\[ R^1 \underset{O}{\longrightarrow} R^2 \]

- \( R^1 \) and \( R^2 \) could be alkyl groups, aryl groups, or a combination thereof.

eg:

- \( \text{CH}_3\text{CH}_2\text{CH}_3 \underset{O}{\longrightarrow} \text{CH}_3\text{CH}_3 \)
- \( \text{CH}_3 \underset{O}{\longrightarrow} \text{C}_6\text{H}_5\text{CH}_3 \)
- \( \text{C}_6\text{H}_5\text{CH}_2\text{CH}_2\text{CH}_2 \underset{O}{\longrightarrow} \text{C}_6\text{H}_5\text{CH}_3 \)
- \( \text{C}_6\text{H}_5\text{CH}_2\underset{O}{\longrightarrow} \text{C}_6\text{H}_5\text{CH}_3 \)

The oxygen atom in an ether molecule is called the ether group.

\[ \text{CH}_3\text{CH}_2 \underset{O}{\longrightarrow} \text{CH}_3\text{CH}_3 \]

ether group

see also symmetrical ether, unsymmetrical ether, aliphatic ether, aromatic ether, cyclic ether, acyclic ether, silyl ether, crown ether

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