

Functional Group Summary

Table 8.2.3 summarizes what you have learned about the functional groups described in this section.

Table 8.2.3 Functional groups

Functional Group	Classification of Organic Compound
$\begin{array}{c} \text{H} \quad \text{H} \\ \quad \\ -\text{C}-\text{C}- \\ \quad \\ \text{H} \quad \text{H} \end{array}$	alkane
$\begin{array}{c} \text{H} \quad \text{H} \\ \quad \\ -\text{C}=\text{C}- \\ \quad \end{array}$	alkene
$-\text{C}\equiv\text{C}-$	alkyne
$\begin{array}{c} \text{H} \quad \quad \text{H} \\ \diagdown \quad / \\ \text{C}=\text{C} \\ / \quad \diagdown \\ \text{H}-\text{C} \quad \quad \text{C}- \\ \backslash \quad / \\ \text{C}=\text{C} \\ \diagup \quad \diagdown \\ \text{H} \quad \quad \text{H} \end{array}$	aromatic hydrocarbon
$\begin{array}{c} \text{X} \\ \\ -\text{C}- \\ \end{array}$	alkyl halide
$\begin{array}{c} \text{OH} \\ \\ -\text{C}- \\ \end{array}$	alcohol
$\begin{array}{c} \quad \quad \\ -\text{C}-\text{O}-\text{C}- \\ \quad \quad \end{array}$	ether
$\begin{array}{c} \text{O} \\ \\ -\text{C}-\text{H} \end{array}$	aldehyde
$\begin{array}{c} \text{O} \\ \\ -\text{C}- \end{array}$	ketone
$\begin{array}{c} \text{O} \\ \\ -\text{C}-\text{OH} \end{array}$	carboxylic acid
$\begin{array}{c} \text{O} \\ \\ -\text{C}-\text{O}-\text{C}- \\ \end{array}$	ester
$\begin{array}{c} \text{NH}_2 \\ \\ -\text{C}- \\ \end{array}$	amine
$\begin{array}{c} \text{O} \\ \\ -\text{C}-\text{NH}_2 \end{array}$	amide