An acid halide is the compound obtained when one or more hydroxy groups in an oxoacid are replaced with halogen atoms. The most common acid halides in organic chemistry are those derived from carboxylic acids. (In organic chemistry, the term "acid halide" customarily means "carboxylic acid halide"). Carboxylic acid halides have the following general structural formula.

\[
\begin{array}{c}
\text{O} \\
\text{R} - \text{C} - \text{X}
\end{array}
\]

R = H, alkyl, aryl
X = halogen

The most common acid halides are acid chlorides in which the halogen is chlorine.

eg:

\[
\begin{array}{c}
\text{C} \\
\text{H} - \text{C} - \text{Cl}
\end{array} \quad \begin{array}{c}
\text{O} \\
\text{CH}_3 - \text{C} - \text{Cl}
\end{array} \quad \begin{array}{c}
\text{C} \\
\text{C} - \text{Cl}
\end{array}
\]

The COCl group in an acid chloride is called the acid chloride group.

\[
\begin{array}{c}
\text{O} \\
\text{CH}_3 - \text{C} - \text{Cl}
\end{array}
\]

Contributors

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