A carboxylic acid ester is an ester derived from a carboxylic acid, which has the following general structural formula.

\[
\begin{array}{c}
\text{O} \\
\text{R}^1 \text{C} - \text{O} - \text{R}^2 \\
\text{R}^1 = \text{H, alkyl, aryl} \\
\text{R}^2 = \text{alkyl, aryl}
\end{array}
\]

eg:

\[
\begin{array}{c}
\text{CH}_3 - \text{C} - \text{O} - \text{C}_6\text{H}_{10} \\
\text{H} - \text{C} - \text{O} - \text{CH}_3
\end{array}
\]

\[
\text{C}_6\text{H}_{11} - \text{C} - \text{O} - \text{CH}_3
\]

The O=C—O group in a carboxylic acid ester is called the carboxylic acid ester group.

\[
\begin{array}{c}
\text{CH}_3 - \text{C} - \text{O} - \text{C}_6\text{H}_{10}
\end{array}
\]

Carboxylic acid esters are the most common esters in organic chemistry. The term ester used without a qualifier usually means a carboxylic acid ester and the term ester group a carboxylic acid ester group.

Contributors

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