

Organic Functional Groups

Category	Functional Group	General Formula	Example
halocarbon	-F, -Cl, -Br, -I	R-X	CH ₃ Cl chloromethane
alcohol	-OH	R-OH	CH ₃ OH methanol
ether	-O-	R-O-R'	CH ₃ OCH ₂ CH ₃ methoxyethane
carboxylic acid	$\begin{array}{c} \text{O} \\ \\ -\text{C}-\text{O}-\text{H} \end{array}$	$\begin{array}{c} \text{O} \\ \\ \text{R}-\text{C}-\text{O}-\text{H} \end{array}$	CH ₃ COOH ethanoic acid
ester	$\begin{array}{c} \text{O} \\ \\ -\text{C}-\text{O}- \end{array}$	$\begin{array}{c} \text{O} \\ \\ \text{R}-\text{C}-\text{O}-\text{R}' \end{array}$	CH ₃ COOCH ₃ methylethanoate
aldehyde	$\begin{array}{c} \text{O} \\ \\ -\text{C}-\text{H} \end{array}$	$\begin{array}{c} \text{O} \\ \\ \text{R}-\text{C}-\text{H} \end{array}$	CH ₃ CH ₂ CHO propanal
ketone	$\begin{array}{c} \text{O} \\ \\ -\text{C}- \end{array}$	$\begin{array}{c} \text{O} \\ \\ \text{R}-\text{C}-\text{R}' \end{array}$	CH ₃ CH ₂ COCH ₃ 2-butanone
amine	-NH ₂	R-NH ₂	CH ₃ CH ₂ CH ₂ NH ₂ propylamine (propanamine)
amide	$\begin{array}{c} \text{O} \\ \\ -\text{C}-\text{NH}_2 \end{array}$	$\begin{array}{c} \text{O} \\ \\ \text{R}-\text{C}-\text{NH}_2 \end{array}$	CH ₃ CH ₂ CONH ₂ propylamide (propanamide)