

ORGANIC COMPOUNDS

<i>Chemical Group</i>	<i>Functional Group</i>	<i>Structural Formula</i>	<i>Nomenclature</i>	<i>Examples</i>
Alcohol	-OH	R-OH	-ol	$\begin{array}{c} \text{CH}_3 - \text{CH} - \text{CH}_3 \\ \\ \text{OH} \end{array}$ 2-propanol
Ether	C-O-C	R-O-R	(root)oxy (root)ane	$\begin{array}{c} \text{CH}_3 - \text{CH}_2 - \text{O} - \text{CH} - \text{CH}_3 \\ \\ \text{CH}_3 \end{array}$ 2-ethoxy-propane
Aldehydes (Terminal)	$\begin{array}{c} \text{O} \\ \\ -\text{C} - \text{H} \end{array}$	$\begin{array}{c} \text{O} \\ \\ \text{R} - \text{C} - \text{H} \end{array}$	-al	$\begin{array}{c} \text{CH}_2 \quad \text{O} \\ \quad \\ \text{CH}_3 - \text{CH} - \text{C} - \text{H} \end{array}$ 2-methylpropanal
Ketones (Never Terminal)	$\begin{array}{c} \text{O} \\ \\ -\text{C} - \end{array}$	$\begin{array}{c} \text{O} \\ \\ \text{R} - \text{C} - \text{R} \end{array}$	-one	$\begin{array}{c} \text{O} \\ \\ \text{CH}_3 - \text{CH}_2 - \text{C} - \text{CH}_2 - \text{CH}_3 \end{array}$ 3-pentanone
Carboxylic Acids	$\begin{array}{c} \text{O} \\ \\ -\text{C} - \text{OH} \end{array}$	$\begin{array}{c} \text{O} \\ \\ \text{R} - \text{C} - \text{OH} \end{array}$	-oic + acid	$\begin{array}{c} \text{O} \\ \\ \text{CH}_3 - \text{C} - \text{OH} \end{array}$ ethanoic acid (Common: Acetic Acid)

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CONTD

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Esters	$\begin{array}{c} \text{O} \\ \parallel \\ -\text{C}-\text{O}- \end{array}$	$\begin{array}{c} \text{O} \\ \parallel \\ \text{R}-\text{C}-\text{O}-\text{R} \end{array}$	-oate	$\begin{array}{c} \text{O} \\ \parallel \\ \text{CH}_3-\text{CH}_2-\text{C}-\text{O}-\text{CH}_3 \\ \text{methyl propanoate} \end{array}$
Amines	$\begin{array}{c} \text{H} \\ \\ \text{H}-\text{N}-\text{H} \end{array}$	$\begin{array}{c} \text{R} \\ \\ \text{R}-\text{N}-\text{R} \end{array}$	-amine	$\begin{array}{c} \text{NH}_2 \\ \\ \text{CH}_3-\text{CH}-\text{CH}_3 \\ \text{2-aminopropane or} \\ \text{isopropylamine} \end{array}$
Amides	$\begin{array}{c} \text{O} \\ \parallel \\ -\text{C}-\text{NH}_2 \end{array}$	$\begin{array}{c} \text{O} \\ \parallel \\ \text{R}-\text{C}-\text{NH}_2 \end{array}$	-amide	$\begin{array}{c} \text{O} \\ \parallel \\ \text{CH}_3-\text{CH}_2-\text{C}-\text{NH}_2 \\ \text{propanamide} \end{array}$
Halogenated Hydrocarbons	$\begin{array}{l} -\text{Br} \\ -\text{Cl} \\ -\text{F} \\ -\text{I} \end{array}$	$\begin{array}{l} \text{R}-\text{Br} \\ \text{R}-\text{Cl} \\ \text{R}-\text{F} \\ \text{R}-\text{I} \end{array}$	bromo- chloro- fluoro- iodo-	$\begin{array}{c} \text{H} \quad \text{H} \\ \quad \\ \text{Cl}-\text{C}-\text{C}-\text{Cl} \\ \quad \\ \text{H} \quad \text{H} \\ \text{1,2-dichloroethane} \end{array}$