

Chemical Formulas

A CompositeTextLine draws one line of text out of parts that sit on the baseline, above it or below it. AddFormula reads a formula and places its parts: the digits that follow an element or a bracket are subscripts, and what follows a circumflex is a superscript, the charge of an ion or the mass number of an isotope. Each formula below is one line and, in this tagged document, one structure element, so a screen reader reads the formula and not its parts.

Compounds

H_2O	Water	CO_2	Carbon dioxide
NaCl	Sodium chloride	H_2SO_4	Sulfuric acid
NaHCO_3	Sodium bicarbonate	Fe_2O_3	Iron(III) oxide
$\text{Ca}(\text{OH})_2$	Calcium hydroxide	$\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$	Copper(II) sulfate
$(\text{NH}_4)_3\text{PO}_4$	Ammonium phosphate	$\text{KAl}(\text{SO}_4)_2$	Potassium alum

Organic compounds

$\text{C}_6\text{H}_{12}\text{O}_6$	Glucose	CH_3COOH	Acetic acid
$\text{C}_8\text{H}_{10}\text{N}_4\text{O}_2$	Caffeine	$\text{C}_9\text{H}_8\text{O}_4$	Aspirin
$\text{C}_2\text{H}_5\text{OH}$	Ethanol	$\text{CH}_3(\text{CH}_2)_{14}\text{COOH}$	Palmitic acid

Ions

Na^+	Sodium	Ca^{2+}	Calcium	NH_4^+	Ammonium
OH^-	Hydroxide	SO_4^{2-}	Sulfate	PO_4^{3-}	Phosphate

Isotopes

^3H	Tritium	^{14}C	Carbon-14	^{235}U	Uranium-235
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Reactions

$2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$	Hydrogen burns
$\text{N}_2 + 3\text{H}_2 \rightarrow 2\text{NH}_3$	Ammonia, the Haber process
$\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$	Limestone is calcined
$\text{CH}_4 + 2\text{O}_2 \rightarrow \text{CO}_2 + 2\text{H}_2\text{O}$	Methane burns