

Simple hydrogen compounds and their acid forms

<i>Formula</i>	<i>Name (pure form)</i>	<i>Acid form (in water)</i>	<i>Formula</i>
HF (g)	hydrogen fluoride	hydrofluoric acid	HF (aq)
HCl (g)	hydrogen chloride	hydrochloric acid*	HCl (aq)
HBr (g)	hydrogen bromide	hydrobromic acid*	HBr (aq)
HI (g)	hydrogen iodide	hydroiodic acid*	HI (aq)
H ₂ S (g)	dihydrogen sulfide	hydrosulfuric acid	H ₂ S (aq)
HCN (g)	hydrogen cyanide	hydrocyanic acid	HCN (aq)

Common polyatomic anions and their acid forms

<i>Formula</i>	<i>Name</i>	<i>Acid form name</i>	<i>Formula</i>
NO ₃ ⁻	nitrate	nitric acid*	HNO ₃
NO ₂ ⁻	nitrite	nitrous acid	HNO ₂
SO ₄ ²⁻	sulfate	sulfuric acid*	H ₂ SO ₄
SO ₃ ²⁻	Sulfite	sulfurous acid	H ₂ SO ₃
PO ₄ ³⁻	phosphate	phosphoric acid	H ₃ PO ₄
PO ₃ ³⁻	phosphite	phosphorus acid	H ₃ PO ₃
CO ₃ ²⁻	carbonate	carbonic acid	H ₂ CO ₃
C ₂ H ₃ O ₂ ⁻	acetate	acetic acid	HC ₂ H ₃ O ₂
CrO ₄ ²⁻	chromate	chromic acid	H ₂ CrO ₄
CN ⁻	cyanide	hydrocyanic acid	HCN (aq)
C ₂ O ₄ ²⁻	oxalate	oxalic acid	H ₂ C ₂ O ₄
oxyhalides			
ClO ₄ ⁻	perchlorate	perchloric acid*	HClO ₄
ClO ₃ ⁻	chlorate	chloric acid	HClO ₃
ClO ₂ ⁻	chlorite	chlorous acid	HClO ₂
ClO ⁻	hypochlorite	hypochlorous acid	HClO
BrO ₄ ⁻	perbromate	perbromic acid	HBrO ₄
BrO ₃ ⁻	bromate	bromic acid	HBrO ₃
BrO ₂ ⁻	bromite	bromous acid	HBrO ₂
BrO ⁻	hypobromite	hypobromous acid	HBrO
IO ₄ ⁻	periodate	periodic acid	HIO ₄
IO ₃ ⁻	iodate	iodic acid	HIO ₃
IO ₂ ⁻	iodite	iodous acid	HIO ₂
IO ⁻	hypoiodite	hypoiodous acid	HIO

* strong acids - These acids ionize completely when added to water.

Common polyatomic anions and cations

<i>Formula</i>	<i>Name</i>
anions	
OH ⁻	hydroxide
MnO ₄ ⁻	permanganate
Cr ₂ O ₇ ²⁻	dichromate
O ₂ ²⁻	peroxide
SCN ⁻	thiocyanate
S ₂ O ₃ ²⁻	thiosulfate
acid anions	
HSO ₄ ⁻	hydrogen sulfate (bisulfate)
HSO ₃ ⁻	hydrogen sulfite (bisulfite)
HCO ₃ ⁻	Hydrogen carbonate (bicarbonate)
H ₂ PO ₄ ⁻	dihydrogen phosphate
HPO ₄ ²⁻	hydrogen phosphate
HS ⁻	Hydrogen sulfide (bisulfide)
cations	
NH ₄ ⁺	ammonium
Hg ₂ ²⁺	mercury(I) or mercurous
H ₃ O ⁺	hydronium