

Common Polyatomic Ions

Alan D. Earhart

General Chemistry I & II and Chemistry and the Citizen

Name	Ion Formula	Name	Ion Formula
ammonium	NH_4^{1+}	sulfite	SO_3^{2-}
hypochlorite	ClO^{1-}	hydrogen sulfite	HSO_3^{1-}
chlorite	ClO_2^{1-}	sulfate	SO_4^{2-}
chlorate	ClO_3^{1-}	hydrogen sulfate	HSO_4^{1-}
perchlorate	ClO_4^{1-}	thiosulfate	$\text{S}_2\text{O}_3^{2-}$
hypobromite	BrO^{1-}	carbonate	CO_3^{2-}
bromite	BrO_2^{1-}	hydrogen carbonate	HCO_3^{1-}
bromate	BrO_3^{1-}	oxalate	$\text{C}_2\text{O}_4^{2-}$
perbromate	BrO_4^{1-}	nitrite	NO_2^{1-}
acetate ¹	$\text{C}_2\text{H}_3\text{O}_2^{1-}$	nitrate	NO_3^{1-}
selenate	SeO_4^{2-}	cyanide	CN^{1-}
phosphate	PO_4^{3-}	cyanate	OCN^{1-}
hydrogen phosphate	HPO_4^{2-}	thiocyanate	SCN^{1-}
dihydrogen phosphate	$\text{H}_2\text{PO}_4^{1-}$	hydroxide	OH^{1-}
chromate	CrO_4^{2-}	permanganate	MnO_4^{1-}
dichromate	$\text{Cr}_2\text{O}_7^{2-}$	peroxide	O_2^{2-}

Note that the word "ion" is assumed for each of the polyatomic ion names in this table.

¹ The formula for the acetate ion is also often written $\text{CH}_3\text{COO}^{1-}$.