Polyatomic Ions Reference

41 common ions · grouped by charge · highlighted rows show related -ate / -ite pairs

Cations

Name	Formula	Charge
Ammonium	NH_4	1+
Hydronium	H_3O	1+
Mercury(I)	Hg_2	2+

1– Anions

Name	Formula	Charge
Acetate	CH_3COO	1–
Amide	NH_2	1–
Azide	N_3	1–
Bromate	BrO_3	1–
Chlorate	ClO_3	1–
Chlorite	ClO_2	1–
Cyanate	OCN	1–
Cyanide	CN	1–
Dihydrogen phosphate	H_2PO_4	1–
Formate	$HCOO$	1–
Hydrogen carbonate (bicarbonate)	HCO_3	1–
Hydrogen sulfate (bisulfate)	HSO_4	1–
Hydrogen sulfite	HSO_3	1–
Hydroxide	OH	1–
Hypochlorite	ClO	1–
Iodate	IO_3	1–
Nitrate	NO_3	1–
Nitrite	NO_2	1–
Perbromate	BrO_4	1–
Perchlorate	ClO_4	1–
Periodate	IO_4	1–
Permanganate	MnO_4	1–
Thiocyanate	SCN	1–

2– Anions

Name	Formula	Charge
Carbonate	CO_3	2–
Chromate	CrO_4	2–
Dichromate	Cr_2O_7	2–
Hydrogen phosphate	HPO_4	2–
Oxalate	C_2O_4	2–
Peroxide	O_2	2–
Silicate	SiO_3	2–
Sulfate	SO_4	2–
Sulfite	SO_3	2–
Thiosulfate	S_2O_3	2–

3– Anions

Name	Formula	Charge
Arsenate	AsO_4	3–
Borate	BO_3	3–
Citrate	$C_6H_5O_7$	3–
Phosphate	PO_4	3–
Phosphite	PO_3	3–

Oxyanion naming pattern

For related oxyanions, -ate generally has more oxygen than -ite; per- indicates one more oxygen than -ate, while hypo- indicates one fewer than -ite.