

Ions List

Acetate	$\text{C}_2\text{H}_3\text{O}_2^-$	Iodide	I^-
Aluminum	Al^{+3}	Lead	Pb^{+2}
Ammonium	NH_4^+	Lithium	Li^+
Barium	Ba^{+2}	Magnesium	Mg^{+2}
Bicarbonate	HCO_3^-	Manganese	Mn^{+2}
Bisulfate	HSO_4^-	Mercuric = Mercury (II)	Hg^{+2}
Bisulfide	HS^-	Polyatomic: Mercury (I)	Hg_2^{+2}
Bisulfite	HSO_3^-	Nickel	Ni^{+2}
Bromate	BrO_3^-	Nitrate	NO_3^-
Bromide	Br^-	Nitride	N^{-3}
Bromite	BrO_2^-	Nitrite	NO_2^-
Calcium	Ca^{+2}	Oxalate	$\text{C}_2\text{O}_4^{-2}$
Carbonate	CO_3^{-2}	Oxide	O^{-2}
Chlorate	ClO_3^-	Perbromate	BrO_4^-
Chloride	Cl^-	Perchlorate	ClO_4^-
Chlorite	ClO_2^-	Periodate	IO_4^-
Chromate	CrO_4^{-2}	Permanganate	MnO_4^-
Chromium	Cr^{+3}	Peroxide	O_2^{-2}
Cupric = Copper (II)	Cu^{+2}	Phosphate	PO_4^{-3}
Cuprous = Copper (I)	Cu^+	Phosphide	P^{-3}
Cyanide	CN^-	Phosphite	PO_3^{-3}
Dichromate	$\text{Cr}_2\text{O}_7^{-2}$	Potassium	K^+
Ferric = Iron (III)	Fe^{+3}	Silver	Ag^+
Ferrous = Iron (II)	Fe^{+2}	Sodium	Na^+
Fluoride	F^-	Stannic = Tin (IV)	Sn^{+4}
Hydrogen	H^+	Stannous = Tin (II)	Sn^{+2}
Hydronium	H_3O^+	Strontium	Sr^{+2}
Hydroxide	OH^-	Sulfate	SO_4^{-2}
Hypobromite	BrO^-	Sulfite	SO_3^{-2}
Hypochlorite	ClO^-	Sulfide	S^{-2}
Hypoiodite	IO^-	Thiocyanate	SCN^-
Iodate	IO_3^-	Thiosulfate	$\text{S}_2\text{O}_3^{-2}$
Iodite	IO_2^-	Zinc	Zn^{+2}

Turn over for Hints to help remember ions and for Solubility rules →

Rules to help remember ions:

Per- prefix has 1 more O than -ate

Ex: Perchlorate = ClO_4^-

-ate ending has 1 more O than -ite

Ex: Chlorate = ClO_3^-

-ite ending has 1 less O than -ate

Ex: Chlorite = ClO_2^-

Hypo- prefix has 1 less O than -ite

Ex: Hypochlorite = ClO^-

Bi- prefix has an H^+ on ion

Ex: Bicarbonate = HCO_3^-

Solubility Rules

Always soluble:

Alkali metal ions (Li^+ , Na^+ , K^+ , Rb^+ , Cs^+)

Ammonium (NH_4^+)

NO_3^- , ClO_3^- , ClO_4^- , $\text{C}_2\text{H}_3\text{O}_2^-$

Generally Soluble:

Cl^- , Br^- , I^- soluble UNLESS with Ag^+ , Pb^{+2} , Hg_2^{+2}

F^- soluble UNLESS with Ca^{+2} , Sr^{+2} , Ba^{+2} , Pb^{+2} , Mg^{+2}

SO_4^{-2} soluble UNLESS with Ca^{+2} , Sr^{+2} , Ba^{+2} , Pb^{+2}

Generally Insoluble:

O^{-2} , OH^- Insoluble UNLESS with Alkali metals, NH_4^+

Somewhat soluble with Ca^{+2} , Sr^{+2} , Ba^{+2}

CO_3^{-2} , PO_4^{-3} , S^{-2} , SO_3^{-2} , $\text{C}_2\text{O}_4^{-2}$, CrO_4^{-2}

Insoluble UNLESS with Alkali metals, NH_4^+

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