

Solubility Rules

Use the following rules to determine if an ionic compound will be soluble (aq) or insoluble (s).

Compounds containing the following ions are generally soluble in water (aq)	Exceptions that are insoluble (s)
NH_4^+ , Li^+ , Na^+ , K^+	None
NO_3^- , $\text{C}_2\text{H}_3\text{O}_2^-$	None
Cl^- , Br^- , I^-	Compounds of Ag^+ , Hg_2^{2+} , or Pb^{2+}
SO_4^{2-}	Compounds of Ca^{2+} , Sr^{2+} , Ba^{2+} , or Pb^{2+}
Compounds containing the following ions are generally insoluble in water (s)	Exceptions that are soluble (aq)
CO_3^{2-} , CrO_4^{2-} , PO_4^{3-}	Compounds of NH_4^+ , Li^+ , Na^+ , K^+
OH^- , S^{2-}	Compounds of NH_4^+ , Li^+ , Na^+ , K^+ , Ca^{2+} , Sr^{2+} , Ba^{2+}