

Solubility Rules

1. Most nitrate (NO_3^-) and acetate ($\text{C}_2\text{H}_3\text{O}_2^-$) salts are soluble.
2. Most salts of alkali metals (Li, Na, K, Cs, Rb) and ammonium (NH_4^+) cations are soluble.
3. Most chloride, bromide, and iodide salts are soluble.

Exceptions: Salts containing Ag^+ , Pb^{2+} , and Hg_2^{2+} ions are insoluble.

4. Most sulfate (SO_4^{2-}) salts are soluble.

Exceptions: Sulfates containing Ag^+ , Ca^{2+} , Ba^{2+} , Pb^{2+} and Hg_2^{2+} ions are insoluble.

5. Most hydroxide (OH^-) salts are insoluble.

Exceptions: Hydroxides containing alkali metals are soluble.
Hydroxides containing Ba^{2+} , Sr^{2+} and Ca^{2+} ions are marginally soluble.

6. Most sulfide, carbonate (CO_3^{2-}), chromate (CrO_4^{2-}), and phosphate (PO_4^{3-}) salts are insoluble.

Exceptions: Salts of alkali metals and ammonium cations are soluble.