

Solubility rules

Listed here is a guideline for what ionic compounds are soluble in water.

Tier 1: Always soluble



Group 1 cations (Li^+ , Na^+ , K^+ , ...)



Tier 2: Insoluble unless paired with a Tier 1 ion



S^{2-} (except soluble with Ca^{2+} , Sr^{2+} , Ba^{2+})

OH^- (except soluble with Ca^{2+} , Sr^{2+} , Ba^{2+})

Tier 3: Soluble with some exceptions

SO_4^{2-} (except insoluble with Ag^+ , Hg_2^{2+} , Pb^{2+} , Ca^{2+} , Sr^{2+} , Ba^{2+})

Group 17 anions (F^- , Cl^- , Br^- , ...) (except insoluble with Ag^+ , Hg_2^{2+} , Pb^{2+})