
USNCO Flashcards

Solubility Rules

Any of the following implies the salt is soluble

- All group 1A and NH_4^+ salts
- All compounds which contain anions NO_3^- , ClO_4^- , ClO_3^- , CH_3COO^-
- All Cl^- , Br^- , I^- except paired with Ag^+ , Pb^{2+} , Hg_2^{2+}
- All SO_4^{2-} except paired with Ag^+ , Pb^{2+} , Hg_2^{2+} , Ca^{2+} , Sr^{2+} , Ba^{2+}

Solubility Rules

Any of the following implies an insoluble salt

- All OH^- are insoluble **except** when paired with Group 1A, NH_4^+ , Ca^{2+} , Ba^{2+} , Sr^{2+}
- All CO_3^{2-} , S^{2-} , PO_4^{3-} , SO_3^{2-} are insoluble barring group 1 and NH_4^+
- Insoluble CO_3^{2-} salts include
 - CaCO_3 , SrCO_3 , BaCO_3 , FeCO_3 , PbCO_3
- Insoluble PO_4^{3-} salts include
 - $\text{Ca}_3(\text{PO}_4)_2$, Ag_3PO_4