

Table 9.1 General Solubility Guidelines

Guideline	Cations	Anions	Result	Exceptions
1	Li^+ , Na^+ , K^+ , Rb^+ , Cs^+ , NH_4^+	NO_3^- , CH_3COO^- , ClO_3^-	soluble	$\text{Ca}(\text{ClO}_3)_2$ is insoluble
2	Ag^+ , Pb^{2+} , Hg^+	CO_3^{2-} , PO_4^{3-} , O^{2-} , S^{2-} , OH^-	insoluble	BaO and $\text{Ba}(\text{OH})_2$ are soluble. Group 2 sulfides tend to decompose.
3		Cl^- , Br^- , I^-	soluble	
4	Ba^{2+} , Ca^{2+} , Sr^{2+}		insoluble	
5	Mg^{2+} , Cu^{2+} , Zn^{2+} , Fe^{2+} , Fe^{3+} , Al^{3+}	SO_4^{2-}	soluble	