

TABLE 9.2

Solubility Guidelines: Soluble Compounds

Water-soluble compounds	Insoluble exceptions
Compounds containing an alkali metal cation (Li^+ , Na^+ , K^+ , Rb^+ , Cs^+) or the ammonium ion (NH_4^+)	
Compounds containing the nitrate ion (NO_3^-), acetate ion ($\text{C}_2\text{H}_3\text{O}_2^-$), or chlorate ion (ClO_3^-)	
Compounds containing the chloride ion (Cl^-), bromide ion (Br^-), or iodide ion (I^-)	Compounds containing Ag^+ , Hg_2^{2+} , or Pb^{2+}
Compounds containing the sulfate ion (SO_4^{2-})	Compounds containing Ag^+ , Hg_2^{2+} , Pb^{2+} , Ca^{2+} , Sr^{2+} , or Ba^{2+}

TABLE 9.3

Solubility Guidelines: Insoluble Compounds

Water-insoluble compounds	Soluble exceptions
Compounds containing the carbonate ion (CO_3^{2-}), phosphate ion (PO_4^{3-}), chromate ion (CrO_4^{2-}), or sulfide ion (S^{2-})	Compounds containing Li^+ , Na^+ , K^+ , Rb^+ , Cs^+ , or NH_4^+
Compounds containing the hydroxide ion (OH^-)	Compounds containing Li^+ , Na^+ , K^+ , Rb^+ , Cs^+ , or Ba^{2+}