

TABLE 4.1 Solubility Guidelines for Common Ionic Compounds in Water

Soluble Ionic Compounds	Important Exceptions
Compounds containing	None
NO_3^-	None
CH_3COO^-	Compounds of Ag^+ , Hg_2^{2+} , and Pb^{2+}
Cl^-	Compounds of Ag^+ , Hg_2^{2+} , and Pb^{2+}
Br^-	Compounds of Ag^+ , Hg_2^{2+} , and Pb^{2+}
I^-	Compounds of Sr^{2+} , Ba^{2+} , Hg_2^{2+} , and Pb^{2+}
SO_4^{2-}	Compounds of Sr^{2+} , Ba^{2+} , Hg_2^{2+} , and Pb^{2+}
Insoluble Ionic Compounds	Important Exceptions
Compounds containing	Compounds of NH_4^+ , the alkali metal cations, Ca^{2+} , Sr^{2+} , and Ba^{2+}
S^{2-}	Compounds of NH_4^+ and the alkali metal cations
CO_3^{2-}	Compounds of NH_4^+ and the alkali metal cations
PO_4^{3-}	Compounds of NH_4^+ and the alkali metal cations
OH^-	Compounds of NH_4^+ , the alkali metal cations, Ca^{2+} , Sr^{2+} , and Ba^{2+}

