

**TABLE 4.1 Solubility Guidelines for Common Ionic Compounds in Water**

<b>Soluble Ionic Compounds</b>		<b>Important Exceptions</b>
Compounds containing	$\text{NO}_3^-$	None
	$\text{C}_2\text{H}_3\text{O}_2^-$	None
	$\text{Cl}^-$	Compounds of $\text{Ag}^+$ , $\text{Hg}_2^{2+}$ , and $\text{Pb}^{2+}$
	$\text{Br}^-$	Compounds of $\text{Ag}^+$ , $\text{Hg}_2^{2+}$ , and $\text{Pb}^{2+}$
	$\text{I}^-$	Compounds of $\text{Ag}^+$ , $\text{Hg}_2^{2+}$ , and $\text{Pb}^{2+}$
	$\text{SO}_4^{2-}$	Compounds of $\text{Sr}^{2+}$ , $\text{Ba}^{2+}$ , $\text{Hg}_2^{2+}$ , and $\text{Pb}^{2+}$
<b>Insoluble Ionic Compounds</b>		<b>Important Exceptions</b>
Compounds containing	$\text{S}^{2-}$	Compounds of $\text{NH}_4^+$ , the alkali metal cations, and $\text{Ca}^{2+}$ , $\text{Sr}^{2+}$ , and $\text{Ba}^{2+}$
	$\text{CO}_3^{2-}$	Compounds of $\text{NH}_4^+$ and the alkali metal cations
	$\text{PO}_4^{3-}$	Compounds of $\text{NH}_4^+$ and the alkali metal cations
	$\text{OH}^-$	Compounds of the alkali metal cations, and $\text{Ca}^{2+}$ , $\text{Sr}^{2+}$ , and $\text{Ba}^{2+}$