

## Solubility of Common Compounds

Compounds containing these ions are soluble in water . . .		. . . unless they also contain these ions, which make them insoluble.
<b>ammonium</b>	$\text{NH}_4^+$	
<b>potassium</b>	$\text{K}^+$	
<b>sodium</b>	$\text{Na}^+$	
<b>acetate</b>	$\text{C}_2\text{H}_3\text{O}_2^-$	$\text{Fe}^{3+}, \text{Al}^{3+}, \text{Hg}_2^{2+}$
<b>chlorate</b>	$\text{ClO}_3^-$	
<b>chloride</b>	$\text{Cl}^-$	$\text{Ag}^+, \text{Hg}_2^{2+}, \text{Pb}^{2+}$
<b>nitrate</b>	$\text{NO}_3^-$	
<b>sulfate</b>	$\text{SO}_4^{2-}$	$\text{Ca}^{2+}, \text{Ba}^{2+}, \text{Pb}^{2+}, \text{Sr}^{2+}, \text{Hg}_2^{2+}$
Compounds containing these ions are insoluble in water . . .		. . . unless they also contain these ions, which make them soluble.
<b>carbonate</b>	$\text{CO}_3^{2-}$	$\text{K}^+, \text{Li}^+, \text{Na}^+, \text{NH}_4^+$
<b>hydroxide</b>	$\text{OH}^-$	$\text{K}^+, \text{Li}^+, \text{Ba}^{2+}, \text{Na}^+$
<b>oxide</b>	$\text{O}^{2-}$	
<b>phosphate</b>	$\text{PO}_4^{3-}$	$\text{K}^+, \text{Na}^+, \text{NH}_4^+$
<b>silicate</b>	$\text{SiO}_3^{2-}$	$\text{K}^+, \text{Na}^+$
<b>sulfide</b>	$\text{S}^{2-}$	$\text{K}^+, \text{Na}^+, \text{NH}_4^+$
<b>sulfite</b>	$\text{SO}_3^{2-}$	$\text{K}^+, \text{Na}^+, \text{NH}_4^+$