

Chemistry CP

Name: _____

Solubility Table

Section: _____

Solubility of Some Ionic Compounds in Water

Negative Ion (Anion)	+	Positive Ion (Cation)	Form a Compound Which Is...
Any anion	+	Alkali metal ions (Li^+ , Na^+ , K^+ , Rb^+ , or Cs^+)	Soluble (i.e., >0.1 mol/L)
Any anion	+	Ammonium ion, NH_4^+	Soluble
Nitrate, NO_3^-	+	Any cation	Soluble
Acetate, CH_3COO^-	+	Any cation except Ag^+	Soluble
Chloride, Cl^- , or Bromide, Br^- , or Iodide, I^-	+	Ag^+ , Pb^{2+} , Hg_2^{2+} , or Cu^+	Not soluble
	+	Any other cation	Soluble
Sulfate, SO_4^{2-}	+	Ca^{2+} , Sr^{2+} , Ba^{2+} , Ra^{2+} , Ag^+ or Pb^{2+}	Not soluble
	+	Any other cation	Soluble
Sulfide, S^{2-}	+	Alkali metals or NH_4^+	Soluble
	+	Be^{2+} , Mg^{2+} , Ca^{2+} , Sr^{2+} , Ba^{2+} , or Ra^{2+}	Soluble
	+	Any other cation	Not soluble
Hydroxide, OH^-	+	Alkali metal ions or NH_4^+	Soluble
	+	Sr^{2+} , Ba^{2+} , or Ra^{2+}	Slightly soluble
	+	Any other cation	Not soluble
Phosphate, PO_4^{3-} , or Carbonate, CO_3^{2-} , or Sulfite, SO_3^{2-}	+	Alkali metal ions or NH_4^+	Soluble
	+	Any other cation	Not soluble