

Identifying Ions in a Salt:

Identify the ions that make up the salts. Ignore solubility. Put correct charges. Balance the "equation."

1. $\text{CuSO}_4 (aq) \rightarrow \text{Cu}^{2+} (aq) + \text{SO}_4^{2-} (aq)$
2. $\text{Fe}_2\text{O}_3 (aq) \rightarrow 2\text{Fe}^{3+} (aq) + 3\text{O}^{2-} (aq)$
3. $\text{Mg}_3\text{N}_2 (aq) \rightarrow 3\text{Mg}^{2+} (aq) + 2\text{N}^{3-} (aq)$
4. $\text{Al}_2\text{O}_3 (aq) \rightarrow 2\text{Al}^{3+} (aq) + 3\text{O}^{2-} (aq)$
5. $\text{Co}(\text{NO}_3)_2 (aq) \rightarrow \text{Co}^{2+} (aq) + 2\text{NO}_3^- (aq)$
6. $\text{Na}_3\text{PO}_4 (aq) \rightarrow 3\text{Na}^+ (aq) + \text{PO}_4^{3-} (aq)$
7. $(\text{NH}_4)_2\text{SO}_4 (aq) \rightarrow 2\text{NH}_4^+ (aq) + \text{SO}_4^{2-} (aq)$
8. $\text{NH}_4\text{Cl} (aq) \rightarrow \text{NH}_4^+ (aq) + \text{Cl}^- (aq)$
9. $\text{Al}_2(\text{CO}_3)_3 (aq) \rightarrow 2\text{Al}^{3+} (aq) + 3\text{CO}_3^{2-} (aq)$
10. $\text{Mg}(\text{OH})_2 (aq) \rightarrow \text{Mg}^{2+} (aq) + 2\text{OH}^- (aq)$
11. $\text{KOH} (aq) \rightarrow \text{K}^+ (aq) + \text{OH}^- (aq)$
12. $\text{H}_2\text{SO}_4 (aq) \rightarrow 2\text{H}^+ (aq) + \text{SO}_4^{2-} (aq)$
13. $\text{HCl} (aq) \rightarrow \text{H}^+ (aq) + \text{Cl}^- (aq)$

Determining Solubility of a Salt:

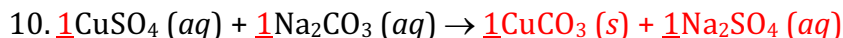
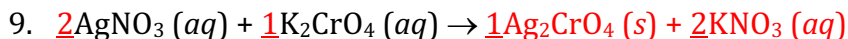
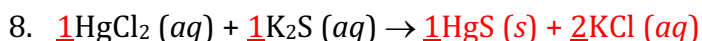
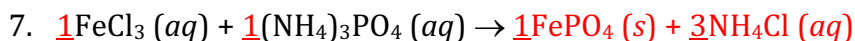
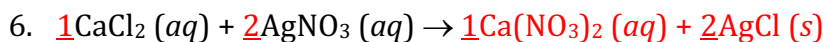
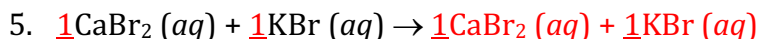
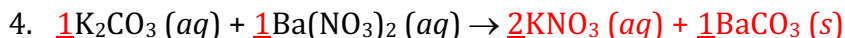
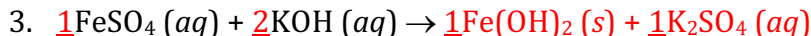
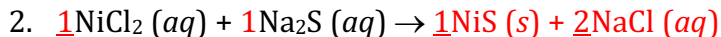
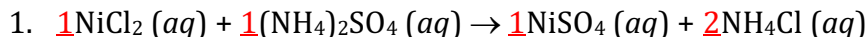
Use the solubility chart to determine if each salt is soluble or insoluble.

1. KNO_3 : soluble
2. PbSO_4 : insoluble
3. KOH : soluble
4. MgSO_4 : soluble
5. FePO_4 : insoluble
6. Nickel (II) Hydroxide : insoluble
7. Sodium Chloride : soluble
8. Barium Nitrate : soluble
9. Ammonium Bromide : soluble
10. Magnesium Hydroxide : soluble

Mixing Salts: Molecular Equations

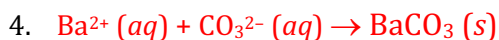
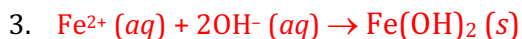
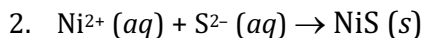
Determine the possible products and balance the equations.

Determine if each product is soluble (aq, aqueous) or an insoluble precipitate (s, solid).

**Mixing Salts: Net Ionic Equations**

For each of the molecular equations in the previous section, write the net ionic equation.

1. No net ionic equation



5. No net ionic reaction

