

Solubility Rules and Precipitates

Most double displacement reactions occur in water. Most of the time, both reactants are aqueous.

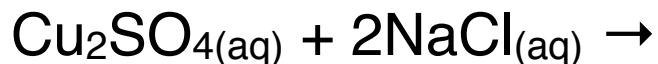
Precipitate is when a solid substance is formed in a solution.

A double displacement reaction that produces a precipitate is called a precipitate reaction.

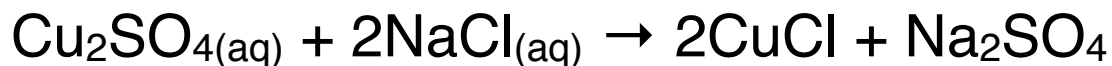
Solubility guidelines are used to identify precipitates.

Compounds that have low solubility in water will form precipitates.

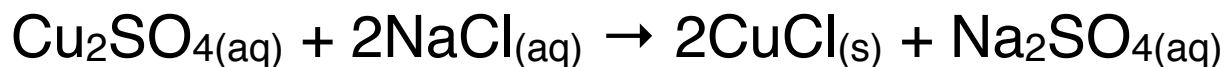
Use the solubility guidelines to determine which of these double displacement reactions may form a precipitate.



Step 1: Determine the products of the double displacement reaction.



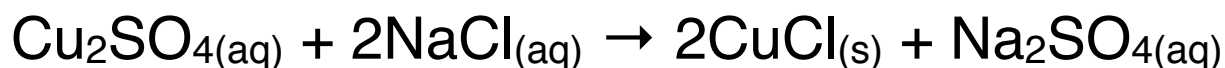
Step 2: Determine the state of each of the products using a solubility chart.



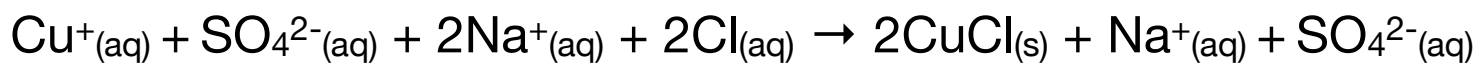
A ***total ionic equation*** is a list of all ions that form a chemical equation.

A ***net ionic equation*** is a list of ions that actually took part in the chemical reaction.

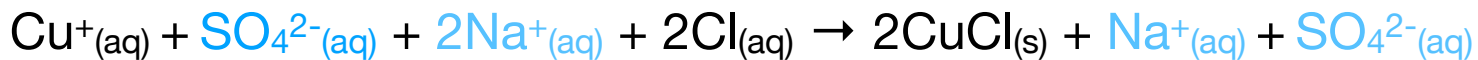
Example:



Total Ionic Equation



Net Ionic Equation



Note that these ions don't change on either side.
That makes them spectator ions and can be
crossed out.

