

Chapter 7 Worksheet:

Reactions in Solution

For each reaction below, determine if and what type of reaction will occur (under "REACTION TYPE" write either: precipitation, gas forming, or no reaction), **predict the products** for the reaction, and then write a **balanced chemical equation**. For those which do not react, indicate this by writing "No Reaction." for the products in the equation.

REACTION TYPE

iron (III) chloride + sodium carbonate

copper (II) sulfate + ammonium hydroxide

barium nitrate + lithium sulfate

magnesium chloride + silver nitrate

aluminum sulfate + calcium hydroxide

lead (II) nitrate + sodium chloride

Aluminum Nitrate + Potassium Iodide

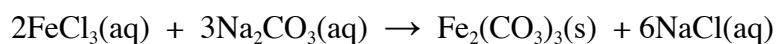
magnesium iodide + sodium carbonate

sodium bicarbonate + hydrochloric acid

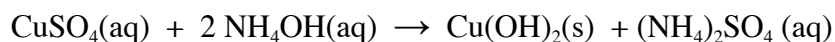
KEY

REACTION TYPE

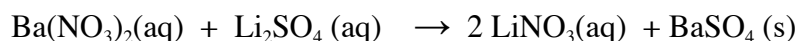
Iron (III) chloride + sodium carbonate.....Precipitation



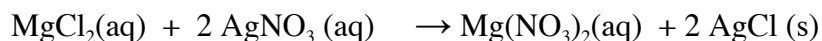
Copper (II) sulfate + ammonium hydroxide.....Precipitation



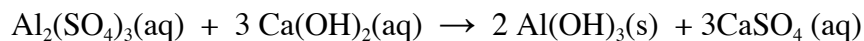
Barium nitrate + lithium sulfate.....Precipitation



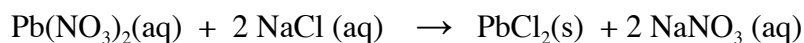
Magnesium chloride + silver nitrate.....Precipitation



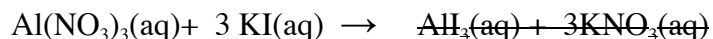
Aluminum sulfate + calcium hydroxide.....Precipitation



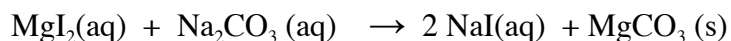
Lead (II) nitrate + sodium chloride.....Precipitation



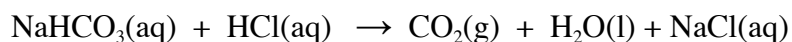
Aluminum Nitrate + Potassium Iodide.....NO REACTION



Magnesium iodide + sodium carbonate.....Precipitation



Sodium bicarbonate + hydrochloric acid.....Gas Forming



NOTE: $\text{H}_2\text{CO}_3(\text{aq})$ is initially formed, but then it decomposes to $\text{CO}_2(\text{g}) + \text{H}_2\text{O}(\text{l})$