

Precipitation worksheet

Consider the solubility table on the right.

Use this table to write balanced overall and ionic equations for the reactions with the following mixtures. Include states.

Soluble Ionic Compounds		Important Exceptions
Compounds containing	NO_3^-	None
	$\text{C}_2\text{H}_3\text{O}_2^-$	None
	Cl^-	Compounds of Ag^+ , Hg_2^{2+} , and Pb^{2+}
	Br^-	Compounds of Ag^+ , Hg_2^{2+} , and Pb^{2+}
	I^-	Compounds of Ag^+ , Hg_2^{2+} , and Pb^{2+}
	SO_4^{2-}	Compounds of Sr^{2+} , Ba^{2+} , Hg_2^{2+} , and Pb^{2+}
Insoluble Ionic Compounds		Important Exceptions
Compounds containing	S^{2-}	Compounds of NH_4^+ , the alkali metal cations, and Ca^{2+} , Sr^{2+} , and Ba^{2+}
	CO_3^{2-}	Compounds of NH_4^+ and the alkali metal cations
	PO_4^{3-}	Compounds of NH_4^+ and the alkali metal cations
	OH^-	Compounds of the alkali metal cations, and Ca^{2+} , Sr^{2+} , and Ba^{2+}

1. Sodium chloride solution mixed with lead nitrate solution
2. Sodium oxide powder placed into a solution of 0.1 M sulphuric acid
3. A solution of 0.1 M calcium sulfate mixed with a solution of ammonium phosphate.
4. A lead nitrate solution is mixed with a 0.2m sodium hydroxide solution
5. Ammonium sulphide solution mixed with a solution of calcium nitrate
6. Copper sulfate solution mixed with a 2.00 M lithium hydroxide solution
7. Magnesium oxide powder placed in a 1.00 M HCl solution.
8. Calcium sulphide solution mixed with a solution of lithium carbonate.