Naı	me : Date :
	Writing and Balancing Equations
Wr	ite and balance the following chemical equations.
1)	When dissolved beryllium chloride reacts with dissolved silver nitrate in water, aqueous beryllium nitrate and silver chloride powder are made.
2)	When isopropanol burns in oxygen, carbon dioxide, water, and heat are produced.
3)	When dissolved sodium hydroxide reacts with sulfuric acid, aqueous sodium sulfate, water, and heat are formed.
4)	When fluorine gas is in contact with calcium metal at high temperatures, calcium fluoride powder is created in an exothermic reaction.
5)	When sodium metal reacts with iron (II) chloride, they form iron and sodium chloride.
6)	Zinc and lead (II) nitrate react to form zinc nitrate and lead.
7)	Aluminum bromide and chlorine gas react to form aluminum chloride and bromine gas.
8)	Sodium phosphate and calcium chloride react to form calcium phosphate and sodium chloride.

Writing and Balancing Equations

Answers

1) When dissolved beryllium chloride reacts with dissolved silver nitrate in water, aqueous beryllium nitrate and silver chloride powder are made.

$$BeCl_3(aq.) + 2 AgNO_3(aq.) \rightarrow Be(NO_3)_3(aq.) + 2 AgCl(s)$$

2) When isopropanol burns in oxygen, carbon dioxide, water, and heat are produced.

$$2 C_3 H_8 O (aq.) + 9 O_2(g) \rightarrow 6 CO_2(g) + 8 H_2 O (I)$$

3) When dissolved sodium hydroxide reacts with sulfuric acid, aqueous sodium sulfate, water, and heat are formed.

2 NaOH (aq.) +
$$H_2SO_4$$
 (aq.) \rightarrow Na₂SO₄ (aq.) + 2 H_2O (I)

4) When fluorine gas is in contact with calcium metal at high temperatures, calcium fluoride powder is created in an exothermic reaction.

$$F_2(g) + Ca(s) \rightarrow CaF_2(s)$$

5) When sodium metal reacts with iron (II) chloride, they form iron and sodium chloride.

$$2 \text{ Na (s)} + \text{FeCl}_2(\text{s}) \rightarrow 2 \text{ NaCl (s)} + \text{Fe (s)}$$

6) Zinc and lead (II) nitrate react to form zinc nitrate and lead.

$$Zn(s) + Pb(NO_3)_2(aq.) \rightarrow Zn(NO_3)_2(aq.) + Pb(s)$$

7) Aluminum bromide and chlorine gas react to form aluminum chloride and bromine gas.

$$2 \text{ AlBr}_{3} (aq.) + 3 \text{ Cl}_{2} (g) \rightarrow 2 \text{ AlCl}_{3} (aq.) + 3 \text{ Br}_{2} (g)$$

8) Sodium phosphate and calcium chloride react to form calcium phosphate and sodium chloride.

$$2 \text{ Na}_{3}\text{PO}_{4} (\text{aq.}) + 3 \text{ CaCl}_{2} (\text{aq.}) \rightarrow 6 \text{ NaCl (aq.}) + \text{Ca}_{3} (\text{PO}_{4})_{2} (\text{s})$$