

Writing Balanced Equations for Reactions with State Symbols

1, Sodium hydroxide reacts with sulfuric acid to produce sodium sulfate and water

2, Zinc metal reacts with copper (II) sulfate solution to produce solid copper and zinc sulfate solution.

3, Barium reacts with water to produce barium hydroxide solution and hydrogen gas.

4, Solid calcium hydroxide reacts with solid ammonium chloride to produce solid calcium chloride, steam and ammonia gas.

5, Octane (C_8H_{18}) is completely burnt in a car engine producing carbon dioxide and water.

6, Silicon tetrachloride reacts with water to produce solid silicon dioxide and hydrogen chloride gas.

7, Lithium oxide solid reacts with hydrochloric acid to produce lithium chloride solution and water.

8, Lead nitrate solid is heated to produce lead (II) oxide solid, nitrogen dioxide gas and oxygen.

9, Liquid bromine reacts with sodium hydroxide solution to form sodium bromide solution, sodium bromate ($NaBrO_3$) and water.

10, Concentrated sulfuric acid reacts with solid sodium iodide to produce solid sodium hydrogen sulfate, iodine vapour, water and hydrogen sulfide gas.
