

# Acids, Bases, Salts Basics



## Fill-in-the-Blank Questions

1. When hydrochloric acid reacts with sodium hydroxide, the products are \_\_\_\_\_ and \_\_\_\_\_.
2. The reaction between an acid and a base to form a salt and water is called a \_\_\_\_\_ reaction.
3. The general reaction between a metal oxide and an acid can be written as: Metal oxide + Acid → \_\_\_\_\_ + \_\_\_\_\_.
4. When zinc reacts with dilute sulfuric acid, \_\_\_\_\_ gas is evolved.
5. The chemical formula for the reaction between calcium carbonate and hydrochloric acid is:  $\text{CaCO}_3 + 2\text{HCl} \rightarrow \text{CaCl}_2 + \text{_____} + \text{_____}$ .
6. The reaction of sodium bicarbonate ( $\text{NaHCO}_3$ ) with hydrochloric acid produces sodium chloride, carbon dioxide, and \_\_\_\_\_.
7. When magnesium reacts with hydrochloric acid, the balanced chemical equation is:  $\text{Mg} + 2\text{HCl} \rightarrow \text{_____} + \text{_____}$ .
8. Adding dilute hydrochloric acid to sodium carbonate results in the formation of sodium chloride, carbon dioxide, and \_\_\_\_\_.
9. The products of the reaction between potassium hydroxide and nitric acid are \_\_\_\_\_ and \_\_\_\_\_.
10. Acetic acid reacts with sodium hydroxide to produce sodium acetate and \_\_\_\_\_.
11. When sulfuric acid reacts with aluminum, the products are aluminum sulfate and \_\_\_\_\_ gas.
12. The reaction between copper oxide and hydrochloric acid produces copper chloride and \_\_\_\_\_.
13. Sodium hydroxide neutralizes sulfuric acid to form sodium sulfate and \_\_\_\_\_.
14. In the reaction between ammonium hydroxide and hydrochloric acid, the products are ammonium chloride and \_\_\_\_\_.
15. The balanced equation for the reaction between barium hydroxide and hydrochloric acid is:  $\text{Ba}(\text{OH})_2 + 2\text{HCl} \rightarrow \text{_____} + 2\text{_____}$ .

## Answer Key

1. sodium chloride, water
2. neutralisation
3. Salt, Water
4. hydrogen
5.  $\text{CO}_2$ ,  $\text{H}_2\text{O}$
6. water
7.  $\text{MgCl}_2$ ,  $\text{H}_2$
8. water
9. potassium nitrate, water
10. water
11. hydrogen
12. water
13. water
14. water
15.  $\text{BaCl}_2$ ,  $\text{H}_2\text{O}$