
CHAPTER 8

An acid is a substance that ionises to produce hydrogen ions, H^+ , when dissolved in water.

PROPERTIES OF ACIDS

1. Acids have a sour taste.
2. Acids dissolve in water to form solutions that conduct electricity.
3. Acids turn blue litmus paper red.
4. Acids react with reactive metals to form a salt and hydrogen gas.
5. Acids react with bases to form a salt and water only.
6. Acids react with carbonates to form a salt, water and carbon dioxide gas.

A base is any metal oxide or hydroxide. They contain either the oxide ion (O^{2-}) or the hydroxide ion (OH^-).

// An alkali is a substance that produces hydroxide ions, OH^- , in aqueous solutions.

PROPERTIES OF ALKALIS

1. Alkalis taste bitter.
2. Alkalis feel slippery and soapy.
3. Alkalis dissolve in water to form solutions that conduct electricity.
4. Alkalis turn red litmus paper blue.
5. Alkalis react with acids to form a salt and water.
6. Alkalis, when heated with ammonium salts, give off ammonia gas.

Metal + Acid = salt + hydrogen

Acid + alkali = salt + water

Acid + carbonate = salt + water + carbon dioxide

Base + ammonium salt = salt + water + ammonia gas
