

Chemistry: Acids and Alkalis

Key word	Definition
Ion	An atom or molecule with a charge due to the loss or gain of an electron
Concentrated	A large number of particles in a given volume
Dilute	A small number of particles in a given volume
Indicator	A substance that changes colour to show whether a solution is acid or alkali
pH scale	A scale to show whether a substance is acid, alkaline or neutral
Neutral	A solution that is neither alkaline or acidic
Neutralisation	When an acid and a base react together to create a neutral solution
Base	An alkali which doesn't dissolve in water

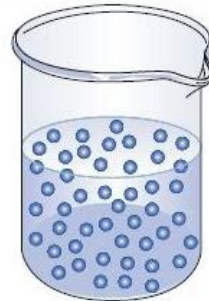


harmful corrosive

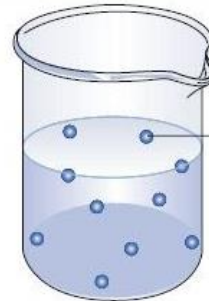


toxic

	Examples
Acid	<ul style="list-style-type: none"> Hydrochloric acid Sulfuric acid Nitric acid
Alkalis	<ul style="list-style-type: none"> Metal Oxides Metal Hydroxides Metal Carbonates



concentrated solution



dilute solution

solute particle

Acids have excess H^+ ions

Bases have excess OH^- ions

Neutral water has equal amounts of H^+ and OH^- ions

Neutralisation equations

metal oxide + acid \rightarrow a salt + water

metal hydroxide + acid \rightarrow a salt + water

metal carbonate + acid \rightarrow a salt + water + carbon dioxide

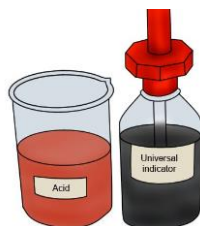
Measuring pH:

Universal indicator is a mixture of dyes which changes colour depending on how acidic or alkaline a solution is:

Acids have a pH less than 7

Alkalis have a pH greater than 7

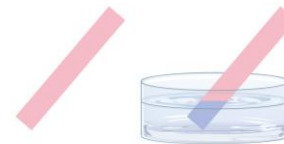
Neutral substances have a pH of exactly 7



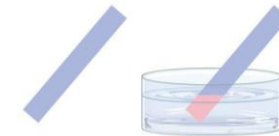
Using a pH meter



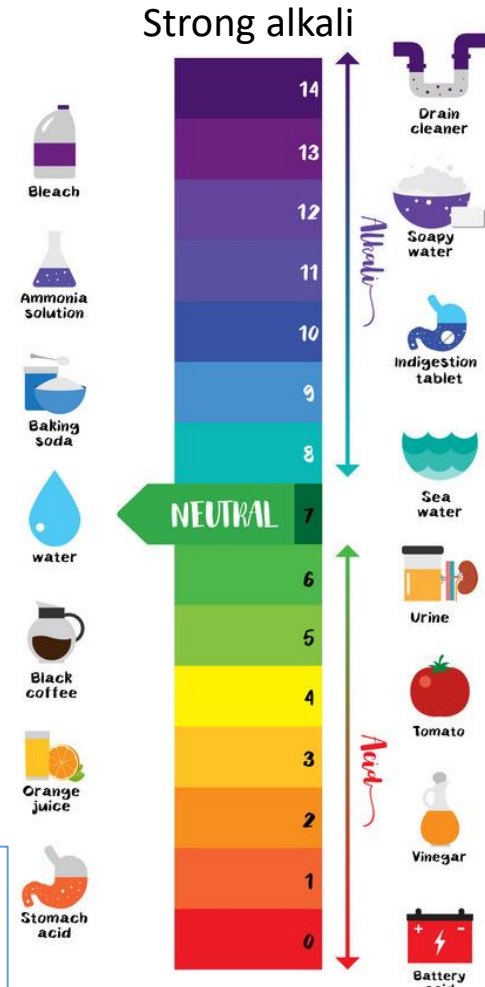
Using litmus paper



Red litmus paper turns blue in alkali



Blue litmus paper turns red in acid



Strong acid

Strong alkali

