

Acids & Alkalis

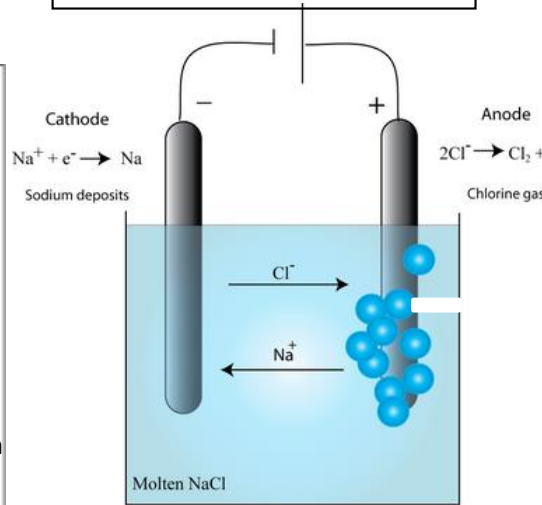
Acids are substances which produce H^+ ions when we add them to water. Bases are substances that will neutralise acids. An **alkali** produce OH^- ions when we add them to water.

The **pH scale** is used to show how acidic or alkaline a solution is.

C4 Chemical Changes

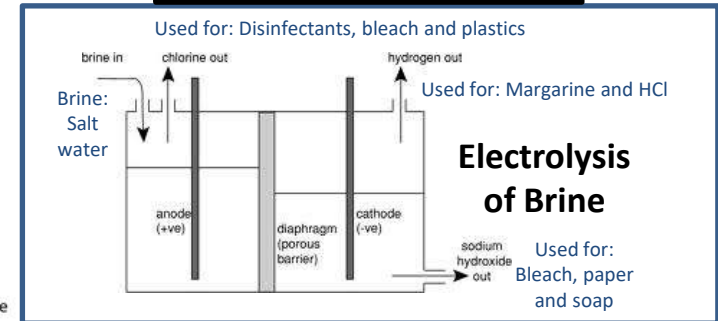
OIL RIG

Oxidation is lose (of electrons)
Reduction is gain (of electrons)

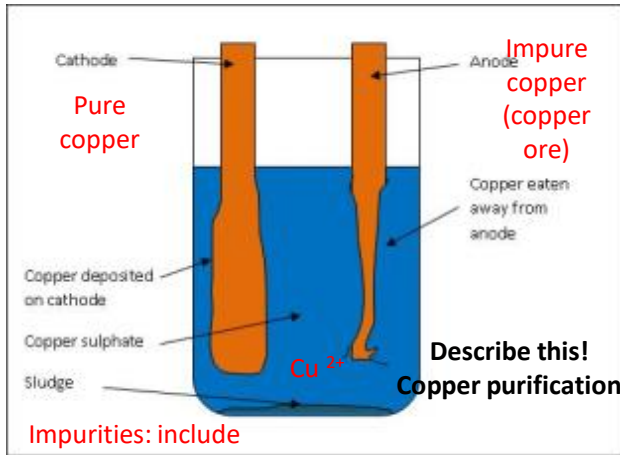
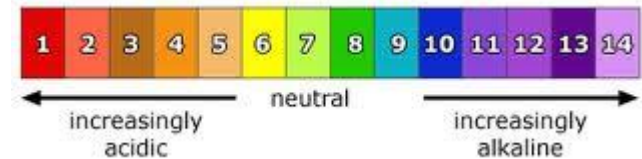


Electrolysis:

Splitting up a substance using electricity



As a solid: High melting and Boiling Point
Conducts electricity when melted or dissolved:
Ions move freely and carry a charge



Impurities: include gold and silver (can be sold)

Electrolysis needs:

- 2 electrodes
- An electrolyte
- A power supply

(Ionic or molten substance)

Ions move toward oppositely charged electrodes



Acid + Metal \rightarrow Salt + Hydrogen
Acid + Base \rightarrow Salt + Water

Acids & Bases (Alkalis)

Acids – H^+

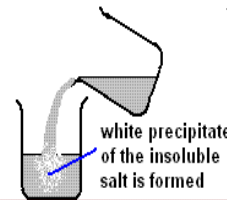
Alkalis – OH^-

Bases **NEUTRALISE** acids

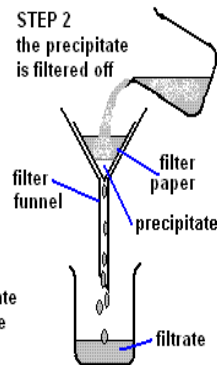
Alkalis are soluble bases

Acid	Salt
Hydrochloric Acid	Chloride
Sulfuric Acid	Sulfate
Nitric Acid	Nitrate

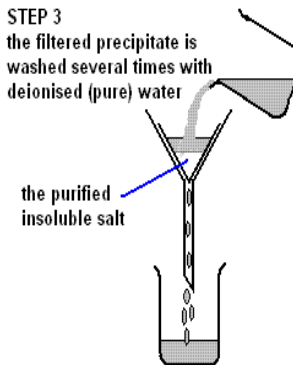
STEP 1
two solutions of soluble substance are mixed together in a beaker



STEP 2
the precipitate is filtered off



STEP 3
the filtered precipitate is washed several times with deionised (pure) water



STEP 4
the insoluble salt is carefully scraped off the filter paper into a dish and dried in an oven

THE PREPARATION OF AN INSOLUBLE SALT

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