**20.2 Oxygen**

Properties:

* A colourless and odourless gas.
* Slightly soluble in water. One litre of water will dissolve 0.03 L of oxygen, enough to support aquatic life.
* Supports combustion.
* Reacts with most metals and non-metals

Many oxides of non-metals are acidic oxides and dissolve in water to form acids.

The reaction of oxygen with metals is known as corrosion.

Test for Oxygen:

* If you place a glowing splint into oxygen it will re-ignite.

Uses:

* Manufacture of Steel
* Manufacture of chemicals
* Medical uses
* Sewage treatment
* Combustion processes

Commercial Production:

* The commercial production of oxygen is one of the largest chemical industries. Nearly all is obtained through fractional distillation. (see nitrogen commercial production)

**Laboratory Preparation of Oxygen.**

Oxygen can be prepared by the decomposition of hydrogen peroxide (H2O2), using manganese dioxide (MnO2) as a catalyst.

Equation: