## **Effects of Oxidation Reactions in Everyday life:**

Corrosion and Rancidity.

**Corrosion:** The process of slow conversion of metals into their undesirable compounds due to their reaction with oxygen, water, acids, gases etc. present in the atmosphere is called Corrosion.

Example: Rusting of iron.

**Rusting:** Iron when reacts with oxygen and moisture forms red substance which is called Rust.

$$4Fe(s) + 3O_2(g) + H_2O(l) \xrightarrow{} 2Fe_2O_3 \cdot xH_2O (s)$$
Rust
(Hydrated ferric oxide)

The rusting of iron is a redox reaction.

Corrosion (rusting) weakens the iron and steel objects and structures such as railings, car bodies, bridges and ships etc. and cuts short their life.

Methods to Prevent Rusting

- By painting.
- By greasing and oiling.
- By galvanisation.

**Rancidity:** The taste and odour of food materials containing fat and oil changes when they are left exposed to air for a long time. This is called Rancidity. It is caused due to the oxidation of fat and oil present in food materials.

Methods to prevent rancidity:

- By adding anti-oxidant.
- · Vacuum packing.
- Replacing air by nitrogen.
- Refrigeration of foodstuff.