



The Ozone Heroes campaign to be launched on 14 September will seek to celebrate the major accomplishments of the Montreal Protocol in protecting the ozone layer and the climate, to increase public recognition of the success and impact of the Protocol, and to generate further support for the Protocol and its new mandate to phase down climate-warming hydro fluorocarbons under the Kigali Amendment, adopted in 2016

Ozone Depletion

The reduction in the amount of ozone in the upper atmosphere is known as ozone depletion. The chemicals which damage the ozone layer are called depleting substances (ODS). The main chemicals causing ozone depletion are Chlorofluorocarbons (CFCs) and Halons. CFCs and Halons are gases or liquids made of chlorine, fluorine and carbon.

CFCs have many uses. They are used as coolant in the compressors of refrigerators and air-conditioners. CFCs are used in the manufacturing of foams and sprays. They are also used to clean electronic circuit boards used in computers and mobile phones.

Halons are similar to CFCs in structure but contain bromine atoms instead of chlorine. They are more dangerous to ozone than CFCs. Halons are used as fire extinguishing agents.

CFCs and Halons are released into the atmosphere during manufacture, testing and repair of the products they are used in. CFCs and Halons reach into the upper atmosphere after they are released. This is a slow process and can take as long as 5 to 15 years. In the upper atmosphere CFCs and Halons are struck by ultraviolet rays and they release chlorine atoms and bromine atoms, which reacts with ozone converting it into ordinary oxygen. Chlorine and bromine acts as catalyst and damage ozone molecule for almost hundred years.

In the lower atmosphere too, CFCs and Halons are harmful. They act as greenhouse gases. That is, they trap the heat reflected back from the Earth's surface. This makes the Earth warmer. Scientists call this 'Global warming'. This phenomenon may change the climate and rainfall patterns of the Earth. It may also lead to rise in sea levels, leading to flooding in many coastal areas of the world.

Effects of Ozone Depletion

When the ozone molecules in the upper atmosphere are destroyed, more Ultraviolet radiation reaches the Earth. Exposure to too much Ultraviolet radiation may lead to widespread damage to all life form which include Human beings, plants, aquatic life and even materials. Increased ultraviolet radiation may increase the rate of skin cancers; the ability of the human system to fight diseases is also weakened. Plants could decrease crop yields.

Our Role to protect ozone layer

- Choose Ozone friendly products.
- Handle refrigerators and air-conditioners carefully, so that only minimum repairs are needed. While repairing, avoid release of CFCs into the atmosphere.
- Use traditional cotton pillows and mattresses instead of foam pillows and mattresses
- Learn more about the issue of ozone depletion and protection of the ozone layer.



REGIONAL MUSEUM OF NATURAL HISTORY

Ministry of Environment, Forest & Climate Change, Govt. of India
Siddarthnagar, Mysore - 570 011. Ph : 0821- 2447046, 2446453

Free Entry & Parking | Time : 10.00am to 6.00pm | Monday Holiday