

# Green Chemistry

- Green chemistry is a way of thinking and is about utilising the existing knowledge and principles of chemistry and other sciences to reduce the adverse impact on environment.
- Utilisation of existing knowledge base for reducing the chemical hazards along with the developmental activities is the foundation of green chemistry.
- Green chemistry, is a cost effective approach which involves reduction in material, energy consumption and waste generation

## Green Chemistry in day-to-day Life

### (i) Dry Cleaning of Clothes

- Tetra chloroethene ( $\text{Cl}_2\text{C}=\text{CCl}_2$ ) was earlier used as solvent for dry cleaning.
- The compound contaminates the ground water and is also a suspected carcinogen
- The process using this compound is now being replaced by a process, where liquefied carbon dioxide with a suitable detergent is used.
- Replacement of halogenated solvent by liquid  $\text{CO}_2$  will result in less harm to ground water.

### (ii) Bleaching of Paper

- Chlorine gas was used earlier for bleaching paper. These days, hydrogen peroxide ( $\text{H}_2\text{O}_2$ ) with suitable catalyst, which promotes the bleaching action of hydrogen peroxide, is used.
- Hydrogen peroxide ( $\text{H}_2\text{O}_2$ ) is used for the purpose of bleaching clothes in the process of laundry, which gives better results and makes use of lesser amount of water

## Strategies for controlling environmental pollution can be:

- (i) waste management i.e., reduction of the waste and proper disposal, also recycling of materials and energy,
- (ii) adopting methods in day-to-day life, which results in the reduction of environmental pollution.