Polyvinyl Chloride (PVC)

- PVC is the second most widely used plastic resin in the world.
- Before the manufacture and disposal process of PVC has been declared as the cause of serious health risks and environmental pollution issues.
- PVC is considered as the most hazardous plastic.
- PVC is also rarely accepted by recycling programs.
- This is why PVC is best to be avoided at all cost.
- The essential raw materials for PVC are **derived from salt and oil**. The electrolysis of salt water produces chlorine, which is combined with ethylene (obtained from oil) to form vinyl chloride monomer (VCM). The polymerisation of VCM to make poly-vinyl-chloride (PVC)

Uses

- PVC is typically used in toys, blister wrap, cling wrap,window frames, detergent bottles, loose-leaf binders, blood bags and medical tubing.
- It is also used in cable wires and insulation.

Methods to recycle PVC

- Mechanical recycling– which essentially involves **mechanical grinding of** the waste material to produce a granular product that can then be used in the production of new PVC products.

- Feedstock recycling – Chemical processes such as pyrolysis, hydrolysis and heating are used to convert the waste into its chemical components.