

# Know more about Plastic



**Plastic is a wonder and an important material in our economy. Modern daily life is unthinkable without them. Plastics are manufactured materials that come from natural resources like oil, gas and coal (fossil fuels). These resources were formed from plants and animals that lived hundreds of millions of years ago. These fuels will not be replaced for millions of years to come—they are called 'non-renewable' resources. Environmentally, plastic is a growing disaster.**

A significant source of landfill waste, plastics are regularly eaten by marine and land animals. Synthetic plastic does not biodegrade. It accumulates in landfills or pollutes the environment. It is a municipal waste nightmare, prompting local governments

to ban the plastics especially single use world wide.

Today, plastics are indispensable used in homes, offices and industry. Right from electrical appliances to kid's toys, plastic percolated to every nook and the corner of the globe.



## CERC-ENVIS Resource Partner

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## Plastic Codes

The Society of the Plastics Industry (SPI) established a classification system in 1988 to allow consumers and recyclers to identify different types of plastic. It is a uniform coding system used worldwide. There is a way to identify the type of plastic in many everyday products, especially food storage containers and packaging. Such plastic products have a number –

“resin identification code” surrounded by a solid equilateral triangle. The symbol should be molded or embossed into the base and positioned as close to the centre as possible. The recommended size is between one-half inch and one inch, depending on the size of the container. The measurements are for the symbol alone, not including letters. The code indicates the type of plastic that an item is made from.

## Decoding Plastic ID Symbols

Recycle Codes	Plastic Names	Common Household Items	Use	Effect on Health/Environment
 PET	PET and PETE- polyethylene terephthalate 	Soft-drink bottles, containers for food and other consumer products, water bottles, peanut butter jars.	Only intended for one-time use. It can be recycled.	These are porous and has a tendency to collect bacteria and residual substances, which means that reuse of this plastic could be harmful.
 HDPE	HDPE- high density polyethylene 	Milk and juice bottles, dishwashing and laundry detergent, grocery bags.	Recycled plastic as it does not break under pressure to extreme heat or cold.	Very safe and are not known to leach any chemicals into drinks and food.
 PVC	PVC – Vinyl or polyvinyl chloride 	Bottles, food trays, rigid sheets used for packaging, electrical insulation, irrigation pipes.	Not often recycled and can be harmful if ingested.	“Poison plastic” because it contains toxins which are harmful to health and the environment. It is considered highly dangerous to cook food items around or store them in.
 LDPE	LDPE - lowdensity polyethylene 	Squeeze bottles, wire insulation, grocery bags, trash bags, food storage bags, plastic cling wrap, sandwich bags.	Not commonly recycled, but it is recyclable in certain areas. Recycled LDPE is used to make garbage cans, lumber, furniture, and many other products.	This kind of plastic is considered widely safe for the regular storage use.
 PP	PP- polypropylene 	Fruit and vegetable packages, bottle caps, drinking straws, cups, baby bottles, kitchenware, and microwavable plastic containers.	This type of plastic is strong and can usually withstand higher temperatures.	Very safe for storage uses and is also widely accepted for recycling.
 PS	PS - polystyrene 	Packaging, CD covers, Styrofoam, egg cartons, packing “peanuts,” plastic tableware, carryout containers, disposable coffee cups, plastic food boxes, plastic cutlery, packing foam.	It can be recycled, but not efficiently; recycling it takes a lot of energy.	A lightweight and easy to form into plastic materials. Also breaks easily, making it more harmful to the environment. It is speculated to be highly dangerous as it leaches potentially toxic chemicals - especially when heated.
 OTHERS	A combination of plastics, or none of the above. Polycarbonate and polylactide are included in this category 	Items already made from recycled goods, semi-rigid food storage, drinking cups, plastic CDs and DVDs.	These types of plastics are difficult to recycle.	BPA (bisphenol A) products fall into this category. An industrial chemical used to make certain plastics and resins. Some research has shown that BPA can seep into food or beverages from containers made with BPA. Exposure to BPA is a concern because of possible health effects. Better to avoid this category of plastics.

## Ways to Use Less Plastic Every Day

Better to use glass or stainless steel water bottles. These can easily be re-used and reduce exposure of drinking water to chemicals.



disposable diapers, disposable Serveware and many one time use articles.

Use reusable bags made of canvas, cotton, hemp, leather, fiber, non-woven fabric bags and woven plastic bags. Carry your own bags.



Better to buy wooden toys or board or card games for children. Plastic causes many health issues in children.

Use stainless steel or glass food storage containers. Or use unbreakable options like silicone. Silicone is highly durable, not biodegradable, but it can be recycled easily.



Check labels on personal care products.



They may contain tiny plastic beads. Avoid anything with “Polyethylene” listed as an ingredient.

Avoid food packed in plastics. Choose cardboard. Easier to recycle and biodegrade more naturally.

Avoid non-stick cookware. Utensils coated with Teflon and other resins pose health threats over a period of continuous usage. Teflon is the registered trade name of the plastic material polytetrafluoroethylene (PTFE). PTFE is one of a class of plastics known as fluoropolymers.

Avoid single use plastics. Say no to plastic straws, single plastic bags, disposable plastic lighters, disposable razor, single use plastic pens,

Some simple changes with eco friendly products can have big impacts on your environmental footprint.

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***Try to reduce, reuse and recycle as much as you can***

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### CERC-ENVIS Resource Partner

Ministry of Environment, Forest & Climate Change, GOI has recognized Consumer Education and Research Centre as ENVIS (Environment Information System) Partner in 2005 with the theme “Environment Literacy-Ecolabelling and Eco-friendly Products.” The focus is to provide environmental information to decision makers, policy planners, scientists and engineers, research workers, etc. across the country.