

# THE FACTS ON STYROFOAM

Adopted in part from the Earth Resource Foundation's "Polystyrene Foam Report"

## What is it?

Polystyrene is a petroleum-based plastic made from the styrene monomer. Most people know it under the trade name Styrofoam. Polystyrene is a light-weight material, about 95% air, with very good insulation properties and is used in all types of products from cups that keep your beverages hot or cold to packaging material that keep your computers safe during shipping. But it is not good for the environment or healthy living and there are many alternatives now available.

## Why not use it?

- The biggest health concern associated with polystyrene is the danger associated with Styrene, the basic building block of polystyrene. Styrene is used extensively in the manufacture of plastics, rubber, and resins. Styrene is classified as a possible human carcinogen by the EPA and by the International Agency for Research on Cancer (IARC).
- A 1986 EPA report on solid waste named the polystyrene manufacturing process as the 5th largest creator of hazardous waste. The National Bureau of Standards Center for Fire Research identified 57 chemical byproducts released during the combustion of polystyrene foam. The process of making polystyrene pollutes the air and creates large amounts of liquid and solid waste.
- Toxic chemicals leach out of these products into the food that they contain (especially when heated in a microwave). These chemicals threaten human health and reproductive systems.
- These products are made with petroleum, a non-sustainable and heavily polluting resource.
- By volume, the amount of space used up in landfills by all plastics is between 25 and 30 percent.
- Polystyrene foam is often dumped into the environment as litter. This material is notorious for breaking up into pieces that choke animals and clog their digestive systems.

## Can polystyrene be recycled?

- While the technology for recycling polystyrene is available; the market for recycling is expensive, very small and shrinking. Almost all drop-off centers do not accept Styrofoam of any kind, regardless of recycle symbol or number!
- The good news is that biodegradable polymers are charting a path for producing environmentally friendly material to replace peanuts, containers and utensils. Corn, sugarcane and wood pulp based and other seeds known collectively as soap stock waste lead the way.
- Polystyrene recycling is not "closed loop" - collected polystyrene cups are not remanufactured into cups, but into other products, such as packing filler and cafeteria trays. This means that more resources will have to be used, and more pollution created, to produce more polystyrene cups.

## Does polystyrene deplete the ozone layer?

- Though polystyrene manufacturers claim that their products are "ozone friendly" or free of CFCs, this is only partially true. Some polystyrene is now manufactured with HCFC-22, which, though less destructive than its chemical cousins, CFC-11 and CFC-12, is still a greenhouse gas and harmful to the ozone layer. In fact, according to a study by the Institute for Energy and Environmental Research, HCFCs are three to five times more destructive to the ozone layer than previously believed.

## Why use alternatives to polystyrene?

- Post-consumer recycled paper, bamboo, corn plastics, etc. are easily renewable resources.
- All of these products biodegrade when composted.
- Every ton of 100% Post-consumer waste recycled paper products you buy saves: 12 trees; 1,087 pounds of solid waste; 1,560 kilowatts of energy (2 months of electric power required by the average US home); 1,196 gallons of water; 1,976 lbs. of greenhouse gases (1,600 miles traveled in the average US car); 3 cubic yards of landfill space; 9 pounds of HAPs, VOCs, and AOXs combined; and 390 gallons of oil!

## What can you do?

- Recycle! Reduce waste at the source and choose products that have less packaging.
- Say NO to Styrofoam! Refuse it! Remember to bring your own reusable containers; ask for foil and instead of the polystyrene take-out box; buy your eggs in recycled paper cartons; use compostable paper plates (or reusable/washable dinnerware)
- Join the efforts of No Foam Chicago to ban styrofoam!