eco tip

The 411 on Styrofoam

Why We Should Just Say No

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Because it is heat-resistant, extremely lightweight and relatively sturdy, Styrofoam is commonly used for takeout food and beverage containers, egg cartons, craft materials, home insulation and product packaging. The harm it causes to human health and the planet outweighs its convenience, however, and a growing number of cities in Asia, Europe and the U.S. have banned its use, including Minneapolis, Portland, Seattle, San Francisco, New York City and Washington, D.C.

The word Styrofoam, which stands for a polystyrene plastic foam made from nonrenewable crude oil, is actually a trademark owned by the Dow Chemical Company in more than 90 countries. Despite city restrictions and growing concern over its safety, 3 million tons of it is produced every year in the U.S.

Human Health Risks Two known toxins—benzene and styrene—are released during the manufacture of this puffed, #6 plastic. The toxins are also released whenever it is subjected to heat—by contact with a hot beverage or in the microwave, for example. In a 1986 U.S. Environmental Protection Agency (EPA) study, styrene was detected in the fatty tissue of every man, woman and child tested. The tens of thousands of people that live and work in environments with high concentrations of styrene have higher instances of cancer, neurological issues, headaches, depression and fatigue, while chronic exposure to benzene is believed to cause blood disorders, negative reproductive effects and increased incidence of leukemia.

Environmental Impacts The manufacturing process of polystyrene was rated as the fifth-largest source of hazardous waste by a 1986 EPA report. It is estimated that 680 pounds of greenhouse gas are emitted to produce 10,000 plastic foam cups.

Styrofoam is virtually non-biodegradable, and only 1 percent of it is recycled. Approximately 2.3 million tons end up in landfills every year, releasing toxins into the air and breaking into smaller particles that make their way into waterways, polluting the human drinking supply and posing great risk to marine life that ingests microplastics.

Better Alternatives It is best to avoid using Styrofoam altogether, opting instead for plant-based, stainless steel, ceramic or glass containers to carry food and beverages. Choose manufacturers and shipping companies that use biodegradable packing materials instead of foam. At the grocery store, purchase eggs in paperboard cartons and get fresh cuts of meat from the butcher rather than those packed in foam trays. At home, select Earth-friendly insulation and steer clear of foam-based craft supplies.