

Fact Sheet

Styrene

What is styrene?

The basic chemical styrene monomer is a clear, colorless, oily liquid that is an essential component of materials like expanded polystyrene foam (EPS), acrylonitrile-butadiene styrene (ABS), styrene-acrylonitrile (SAN), styrene-butadiene rubber (SBR), styrene-butadiene latex and reinforced fiberglass composites which are used to make thousands of everyday products. Styrene should not be confused with polystyrene, which is a manufactured solid plastic with different chemical and physical properties.

The styrene used in everyday products is commonly manufactured synthetically from petroleum and natural gas by-products. Styrene also occurs naturally in many commonly consumed foods and beverages, such as coffee, strawberries, and cinnamon.

How is styrene used?

Due to the strength, flexibility, light weight, low toxicity, and affordability of products made from styrene, styrene is used to make thousands of consumer products, including – but not limited to – food containers and packaging plastics; medical devices; components for automobiles, trucks, trains, boats, aircraft and other means of transport; wind-energy parts and fuel cells; construction and water treatment products; building insulation; armor used by military personnel and vehicles; gasoline and other storage tanks; coatings and the backing materials for carpeting; and protective sports gear, like bicycle helmets.

Is styrene harmful?

The effects of styrene on human health and the environment depend on how much styrene is present and the length and frequency of exposure. Styrene is not harmful in the very small amounts we are reasonably expected to encounter in air, consumer products or food. Extensive research shows that styrene does not persist or accumulate in the atmosphere or in soils or surface waters. Studies have also shown that styrene is not likely to occur in drinking water.

In a comprehensive 2002 review of the potential health impacts of styrene, a 12-member international expert panel convened by the Harvard Center for Risk Analysis concluded there was no health risk to the general public from exposure to styrene.*

Where can I learn more?

Visit Styrene.org and YouKnowStyrene.org for reliable information on styrene and styrene-based products.

*Harvard Center for Risk Analysis (HCRA), J.T. Cohen, et al., "A Comprehensive Evaluation of the Potential Health Risks Associated with Occupational and Environmental Exposure to Styrene," *Journal of Toxicology and Environmental Health, Part B*, v. 5, no. 1-2, pp. 1-263, January 2002.

About SIRC

SIRC is a non-profit organization established in 1987 by organizations involved in the use or manufacture of styrene.

Collectively, SIRC's membership represents approximately 95% of the North American styrene industry.

Headquartered in Washington, D.C., SIRC serves as a liaison between industry, federal and state governments, and international agencies regarding health-related issues involving styrene.

SIRC's mission is to collect, develop, analyze, and communicate information on styrene.

SIRC has gained worldwide recognition as a source for information on styrene, thus helping to have confidence that employee and public health is protected, and that regulatory and legislative decisions are based on evidence-based science.