



Styrene

Why am I being warned about potential exposure to styrene?



- Styrene is on the [Proposition 65](#) list because it can cause cancer. Exposure to styrene may increase the risk of cancer.
- Proposition 65 requires businesses to determine if they must provide a warning about significant exposure to [listed chemicals](#).

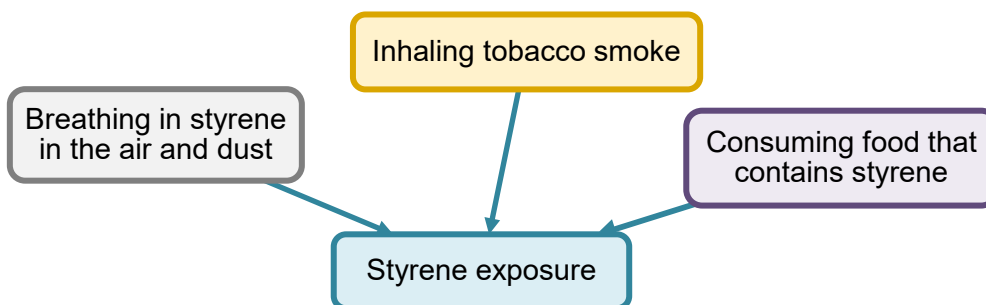
What is styrene?

- Styrene is an industrial chemical used to produce a number of different products, including synthetic rubbers, latex paints and coatings, and polystyrene plastics and resins.

How does exposure to styrene occur?

- Styrene is released into indoor air from some paints and building materials, such as certain types of insulation, insulated panels, and rubber flooring.
- Styrene is released into indoor air during the operation of some 3D printers that use filaments containing acrylonitrile butadiene styrene (ABS) or high-impact polystyrene (HIPS). It can also be released by some photocopiers and laser printers that use toners containing styrene copolymers.
- Styrene is released into the air from some industrial facilities, including plastics and fiberglass manufacturers, and waste disposal sites.
- Small amounts of styrene can be transferred to some food from polystyrene-based food-contact items, such as drinking cups, plates, and other containers.
- Styrene is found in [tobacco smoke](#).
- During pregnancy, styrene can pass from mother to baby.

Main ways you can be exposed to styrene:



How can I reduce my potential exposure to styrene?

- ❌ Do not smoke tobacco. Avoid breathing air that contains tobacco smoke.
- ❌ Do not allow children to smoke tobacco products or spend time in places where tobacco is being smoked, or has been smoked.
- ✓ If possible, limit your consumption of hot foods and beverages from polystyrene-based containers. Do not heat foods or beverages in these containers, which include cups, bowls, and clamshell and other take-out containers. Polystyrene containers may appear as clear or colored plastic or foam, and often carry the recycle code 6.
- ✓ Use a well-ventilated area for printing, especially if you are using:
 - ▶ 3D or laser printers that use filaments containing styrene copolymers.
 - ▶ Photocopiers with toners containing styrene copolymers.

For more information:

General Fact Sheets and Resources

- US Department of Health and Human Services (HHS)
National Institute of Environmental Health Sciences (NIEHS)
 - ▶ Styrene
<https://www.niehs.nih.gov/health/topics/agents/styrene/index.cfm>
- Agency for Toxic Substances and Disease Registry (ATSDR)
 - ▶ Public Health Statement for Styrene
<https://wwwn.cdc.gov/TSP/PHS/PHS.aspx?phsid=419&toxid=74>
 - ▶ Styrene - ToxFAQs™
<https://www.atsdr.cdc.gov/toxfaqs/tfacts53.pdf>

Scientific Information on Styrene

- World Health Organization (WHO)
International Agency for Research on Cancer (IARC)
 - ▶ IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 82 (2002). "Styrene" in Some Traditional Herbal Medicines, Some Mycotoxins, Naphthalene and Styrene, pages 437-550.
<https://publications.iarc.fr/100>
- US Department of Health and Human Services (HHS)
National Toxicology Program (NTP)
 - ▶ Styrene, Report on Carcinogens, Fourteenth Edition
<https://ntp.niehs.nih.gov/ntp/roc/content/profiles/styrene.pdf>

Proposition 65

- California Environmental Protection Agency (CalEPA)
Office of Environmental Health Hazard Assessment (OEHHA)
 - ▶ Proposition 65: Background
<https://www.p65warnings.ca.gov/faq>
 - ▶ Proposition 65: The List of Chemicals
<https://www.p65warnings.ca.gov/chemicals>
 - ▶ Proposition 65: Fact Sheets
<https://www.p65warnings.ca.gov/fact-sheets>