



## Diesel Engine Exhaust

### Why am I being warned about potential exposure to diesel engine exhaust?



- Diesel engine exhaust is on the [Proposition 65](#) list because it can cause cancer.
- Exposure to diesel engine exhaust can cause lung cancer.
- Proposition 65 requires businesses to determine if they must provide a warning about significant exposure to [listed chemicals](#).

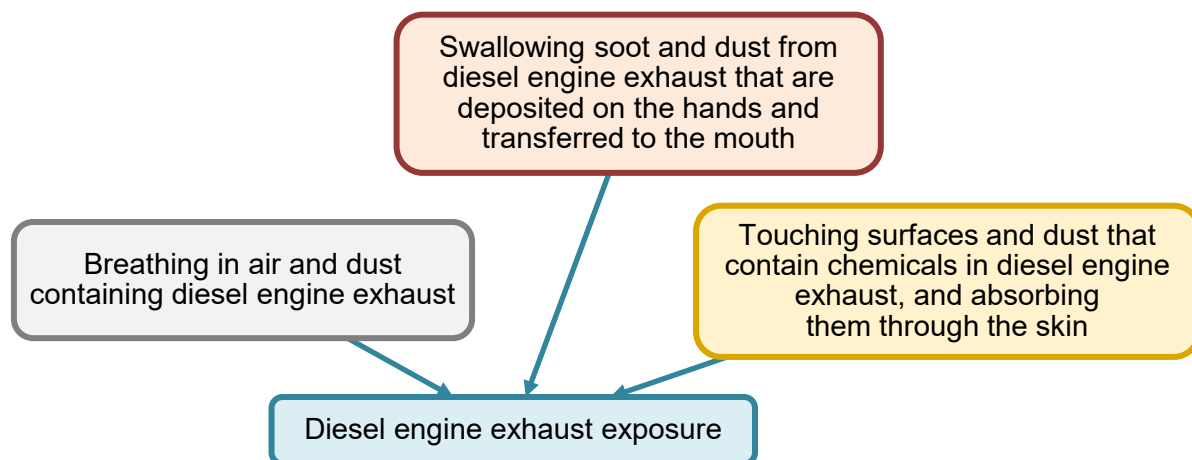
### What is diesel engine exhaust?

- Diesel engine exhaust is produced when engines, including those in vehicles and generators, burn diesel fuel.
- It is a mixture of thousands of chemicals released as gases or particles (soot).
- More than 40 cancer-causing substances are present in diesel engine exhaust, including [benzene](#), [arsenic](#), [formaldehyde](#), acetaldehyde, 1,3-butadiene, [lead](#), and numerous polycyclic aromatic hydrocarbons (a class of chemicals created by burning fuels and other substances).

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### How does exposure to diesel engine exhaust occur?

- Exposure occurs by breathing in air containing diesel engine exhaust. Sources include diesel-powered motor vehicles, ships, trains, generators, and other diesel-powered equipment.
- Exposure also occurs through contact with diesel engine gases and exhaust particles, which may be absorbed through the skin or unintentionally ingested. These contaminants may:
  - Be present on the surface of diesel-powered vehicles and equipment.
  - Enter vehicles, homes, and other structures, where they can settle on surfaces and be absorbed into dust particles.

**Main ways you can be exposed to diesel engine exhaust:****How can I reduce my exposure to diesel engine exhaust?**

- ✓ Always start and operate a diesel engine in a well-ventilated area.
- ✗ Avoid breathing in diesel engine exhaust. Whenever practical, do not stand next to operating diesel engines. Distance yourself from the source of the exhaust.
- ✗ Avoid idling diesel engine vehicles, where possible.
- ✗ Do not use diesel-powered engines in enclosed spaces.
- ✗ Do not modify or tamper with a diesel engine's exhaust system.
- ✓ Install backup and portable diesel-powered generators well away from your homes so that exhaust does not come in through open windows and doors.
- ✓ Consider replacing diesel-powered engines with alternatives such as engines powered by natural gas, propane or electricity.
- ✓ Perform regular maintenance and frequent tune-ups of all diesel-powered equipment.
- ✓ When servicing or maintaining diesel-powered engines, prevent skin contact with exhaust by wearing gloves. Wash your hands when done, and before preparing food, and before eating.

**For more information:****General Fact Sheets and Resources**

- California Environmental Protection Agency (CalEPA)  
California Air Resource Board (CARB)
  - ▶ Overview: Diesel Exhaust & Health  
<http://www.arb.ca.gov/research/diesel/diesel-health.htm>

Office of Environmental Health Hazard Assessment (OEHHA)

- ▶ Health Effects of Diesel Exhaust

<http://oehha.ca.gov/air/health-effects-diesel-exhaust>

- American Cancer Society (ACS)

- ▶ Diesel Exhaust and Cancer

<https://www.cancer.org/cancer/cancer-causes/diesel-exhaust-and-cancer.html>

### **Scientific Information on Diesel Engine Exhaust**

- California Environmental Protection Agency (CalEPA)

Office of Environmental Health Hazard Assessment (OEHHA)

- ▶ Part B: Health Risk Assessment for Diesel Exhaust

<https://www.arb.ca.gov/regact/diesltac/partb.pdf>

- World Health Organization (WHO)

International Agency for Research on Cancer (IARC)

- ▶ IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 105 (2014). "Diesel and Gasoline Engine Exhausts" in Diesel and Gasoline Engine Exhausts and Some Nitroarenes, pages 37-467.

<http://monographs.iarc.fr/ENG/Monographs/vol105/>

### **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>