



Diesel Engine Exhaust

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



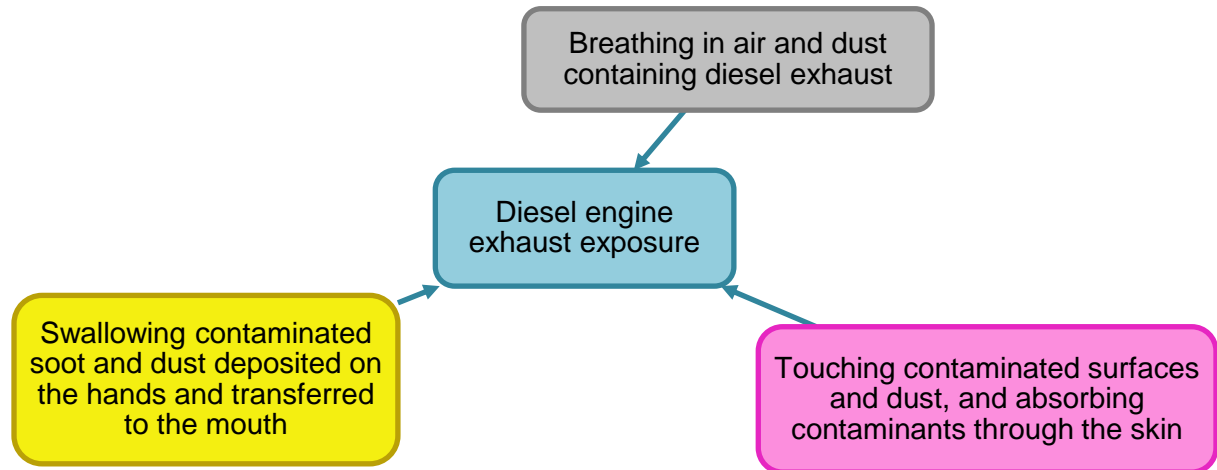
- Diesel engine exhaust is on the [Proposition 65](#) list because it can cause cancer.
- Exposure to diesel engine exhaust can cause lung cancer.
- Proposition 65 requires businesses to determine if they must provide a warning about exposures to [listed chemicals](#).

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).

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 home 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 eating.

For more information:**General Diesel Engine Exhaust Fact Sheets and Resources**

- California Environmental Protection Agency (CalEPA)
Air Resource Board (ARB)
 - ▶ Overview: Diesel Exhaust and 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>
- California Department of Public Health (CDPH)
Hazard Evaluation System and Information Service (HESIS)
 - ▶ Diesel Engine Exhaust
<https://www.cdph.ca.gov/programs/hesis/Documents/diesel.pdf>
- US Environmental Protection Agency (USEPA)
 - ▶ Diesel Exhaust
<https://www3.epa.gov/region1/eco/diesel/index.html>
- American Cancer Society (ACS)
 - ▶ Diesel Exhaust and Cancer
<http://www.cancer.org/cancer/cancercauses/othercarcinogens/pollution/diesel-exhaust-and-cancer>

Scientific Information on Diesel Engine Exhaust

- California Environmental Protection Agency (CalEPA)
Office of Environmental Health Hazard Assessment (OEHHA)
 - ▶ Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant – Executive Summary
<http://oehha.ca.gov/media/downloads/air/document/diesel20exhaust.pdf>
 - ▶ Health Risk Assessment for Diesel Exhaust
<http://oehha.ca.gov/media/downloads/air/document/partb.pdf>
- International Agency for Research on Cancer (IARC)
 - ▶ Diesel and Gasoline Engine Exhaust and Some Nitroarenes
<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 Chemical List
<https://www.p65warnings.ca.gov/chemicals>