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).

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:

- Breathing in air and dust containing diesel engine exhaust
- Swallowing soot and dust from diesel engine exhaust that are deposited on the hands and transferred to the mouth
- Touching surfaces and dust that contain chemicals in diesel engine exhaust, and absorbing them through the skin

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](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](http://oehha.ca.gov/air/health-effects-diesel-exhaust)

- American Cancer Society (ACS)
  - 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
  - Part B: Health Risk Assessment for Diesel Exhaust

- World Health Organization (WHO)
  International Agency for Research on Cancer (IARC)
    [http://monographs.iarc.fr/ENG/Monographs/vol105/](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](https://www.p65warnings.ca.gov/faq)
  - Proposition 65: The List of Chemicals
    [https://www.p65warnings.ca.gov/chemicals](https://www.p65warnings.ca.gov/chemicals)
  - Proposition 65: Fact Sheets
    [https://www.p65warnings.ca.gov/fact-sheets](https://www.p65warnings.ca.gov/fact-sheets)