1-Nitropyrene Fact Sheet

1-Nitropyrene (1-NP) is a polycyclic aromatic hydrocarbon (PAH) that comes mostly from diesel exhaust, which is produced by vehicles and other machinery that run on diesel fuel. This includes some types of trucks, trains, and ships, as well as heavy-duty equipment like bulldozers and tractors.

1-NP comes from

- Diesel exhaust, which is the most common source of 1-NP.
- Other sources include:
  - Exhaust from engines that burn biodiesel, a plant-based alternative to diesel fuel.
  - Exhaust from gas burners and kerosene heaters.
  - Smoke, such as from burning cooking oil, grills, or wood fires.
  - Food that has been grilled, barbecued, or smoked, and some teas.
  - Secondhand tobacco smoke.

Possible health concerns

- 1-NP may increase cancer risk.

Possible ways to reduce exposure

- The main way to reduce your exposure to 1-NP is to reduce your exposure to diesel exhaust; please refer to our fact sheet on Diesel Exhaust for more information.
- Possible ways to reduce your exposure to 1-NP from sources other than diesel exhaust and improve indoor air quality include:
  - Always use an exhaust fan when cooking indoors with an oven, stovetop, gas burner, or hot plate. If you do not have an exhaust fan, open your windows when you cook, and use a portable fan to help move the air outside.
  - Do not use a gas oven or gas burners to heat your home.
  - If you cook with barbecues or grills, use them outdoors only.
  - Do not smoke or allow others to smoke in your home or car, or around your child.
- Limit how much you eat grilled, barbecued, smoked, fried, or roasted food. Avoid burning food. Try steaming, boiling, stewing, or poaching your food more often.
- Because 1-NP and other chemicals can collect in dust:
  - Wash your and your child’s hands often, especially before preparing or eating food.
  - Clean your floors regularly, using a wet mop or HEPA vacuum cleaner if possible, and use a damp cloth to dust.