

FIRE HAZARDS FOR CHEMICALS

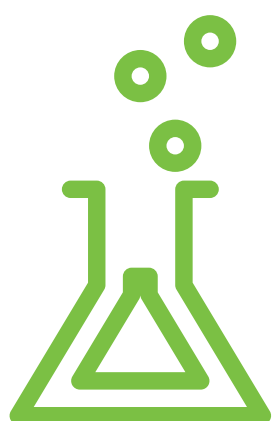


DEFINITION

Smoke released after a fire is a mixture of particles and chemicals produced by incomplete burning of carbon-containing materials. Smoke can contain gases and particles which can be toxic.

HOW MIGHT I BE EXPOSED TO SMOKE?

Microscopic particles in the smoke can penetrate deep into your lungs. They can cause a range of health problems, from burning eyes and a runny nose to aggravated chronic heart and lung diseases.



HOW MANY PARTICLES AND CHEMICALS ARE IN SMOKE?

The type and number of particles and chemicals in smoke varies depending on what is burning, how much oxygen is available, and the burn temperature. Another danger is that smoke contains flammable compounds. With increased oxygen, these can ignite either through open flames or by their own temperature.

POTENTIAL HEALTH EFFECTS

Fires or explosion of certain hazardous substances can affect both animals and human populations. Inhaling smoke for a short time can cause immediate (acute) effects. Smoke is irritating to the eyes, nose, and throat, and its odor may be nauseating. There is also the potential for chronic health effects from exposure to the components of smoke. Two of the major agents in smoke that can cause health effects are carbon monoxide and fine particles or (PM_{2.5}).



HOW CAN I REDUCE THE RISK OF EXPOSURE TO SMOKE?

Exposure to high levels of smoke should be avoided. Limit your physical activity. Once exposure stops, symptoms generally diminish, but may last for a couple of days.

ENVIRONMENTAL MONITORING DURING AND AFTER A FIRE

Environmental testing of some chemicals in smoke may give an idea of the potential adverse effects that people are facing:

- Air sampling with real-time instruments may be performed by fire fighters or health and environmental agencies, to help guide urgent decisions, such as where to establish evacuation boundaries or what personal protective equipment should be worn by fire fighters.
- Air sampling during long-duration fires (e.g., fires lasting days to weeks) may help to understand the significance of health risks from the longer-term exposures people may experience, and where those exposures may be occurring.
- Sampling of air and other media, after fires, that cause the release of large amounts of specific chemicals, may help to guide any necessary post-fire cleanup decisions.

Harris County Pollution Control Services
Complaint Line: 713-920-2831

To file a complaint please visit:
<https://bit.ly/3in43U6>

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 Harris County
Pollution Control



COMMUNITY AIR MONITORING PROGRAM