

n-Hexane - ToxFAQs™

What is *n*-hexane?

n-Hexane is a naturally occurring chemical produced by plants, forest fires, and volcanos. *n*-Hexane is also made from crude oil. Pure *n*-hexane is a colorless liquid with an unusual odor. It is highly flammable, and its vapors can be explosive.



Pure *n*-hexane is used in laboratories. Most of the *n*-hexane used in industry is mixed with similar chemicals called solvents. The major use for solvents containing *n*-hexane is to extract vegetable oils from crops such as soybeans.

These solvents are also used as cleaning agents in the printing, textile, furniture, and shoemaking industries. Certain kinds of special glues used in the roofing, shoe, and leather industries also contain *n*-hexane. Several consumer products contain *n*-hexane, such as gasoline, quick-drying glues used in various hobbies, and rubber cement.

What happens to *n*-hexane in the environment?

n-Hexane naturally occurs in the environment, and it also enters the environment during manufacturing and use. It evaporates very easily into the air where it is broken down in a few days. It slightly dissolves in water. Most of *n*-hexane spilled in water will float on the surface where it evaporates into the air. If *n*-hexane is spilled on the ground, most of it will evaporate before it can soak into the soil. *n*-Hexane does not accumulate in plants, fish, or animals.

How can I be exposed to *n*-hexane?

You are most likely to be exposed to *n*-hexane by breathing in air contaminated with it. You may be exposed if you use products containing it at work or if you intentionally inhale products containing *n*-hexane. Since it is in gasoline, nearly everyone is exposed to very small amounts of *n*-hexane in the air. Exposure can occur at home if you use products containing *n*-hexane without proper ventilation. You may also be exposed to it in edible oils that are processed using *n*-hexane.

How can *n*-hexane affect my health?

Breathing high concentrations of *n*-hexane can cause tingling and/or numbness in the feet and hands, followed by muscle weakness in the feet and lower legs. Continued exposure could lead to paralysis of the arms and legs. Studies of workers have shown that they can recover if they are removed from the exposure.

The levels of *n*-hexane found in the environment are lower than levels known to cause adverse health effects.

Laboratory animal studies show that breathing high levels of *n*-hexane can cause nerve damage; some animals also had damage in the nose and lungs. Abnormal walking, nerve damage, and effects on memory have also been found in animals ingesting *n*-hexane. Decreased birth weights, decreased activity, and damage to sperm-forming cells have been seen in animals exposed to high levels of *n*-hexane.

n-Hexane

Can *n*-hexane cause cancer?

The [U.S. Environmental Protection Agency \(EPA\)](#) has determined that there is inadequate information to assess the carcinogenic potential of *n*-hexane.

The [U.S. Department of Health and Human Services \(DHHS\)](#) and the [International Agency for Research on Cancer \(IARC\)](#) have not assessed the carcinogenicity of *n*-hexane.

Can I get a medical test to check for *n*-hexane?

If you have been exposed to harmful amounts of *n*-hexane, the amount of one of its breakdown products will probably be increased in your blood or urine. Your doctor can send a sample to a specialized laboratory. This test can only detect *n*-hexane exposure that occurred within 2–3 days of testing and cannot predict whether you will have adverse health effects.

How can I protect myself and my family from *n*-hexane?

Teach your children and teenagers the dangers of inhaling products that contain *n*-hexane. Keep products containing *n*-hexane (quick-drying glues and cements) out of the reach of children. Maintain proper ventilation when using these products.

For more information:

Call **CDC-INFO** at 1-800-232-4636, or submit your question online at <https://wwwn.cdc.gov/dcs/ContactUs/Form>

Go to ATSDR's Toxicological Profile for *n*-Hexane: <https://wwwn.cdc.gov/TSP/ToxProfiles/ToxProfiles.aspx?id=393&tid=68>

Go to ATSDR's Toxic Substances Portal: <https://wwwn.cdc.gov/TSP/index.aspx>

Find & contact your ATSDR Regional Representative at <https://www.atsdr.cdc.gov/regional-offices/index.html>

