

# 2-Hexanone - ToxFAQs™

## What is 2-hexanone?

2-Hexanone is also known as methyl n-butyl ketone, MBK, or propyl acetone. It is a clear, colorless liquid with a sharp odor. It dissolves very easily in water and can evaporate easily into the air as a vapor.

It is formed as a waste product resulting from industrial activities such as making wood pulp and producing gas from coal, and in oil shale operations. In the past, 2-hexanone was used in paint and paint thinner, to make other chemical substances, and to dissolve oils and waxes.

**2-Hexanone is no longer made or used in the United States because it has harmful health effects.**



## How can I be exposed to 2-hexanone?

You can be exposed by breathing contaminated air or drinking contaminated water. You can also be exposed by eating some foods that naturally contain very low levels of 2-hexanone, although this exposure is not known to cause health problems.

2-Hexanone is absorbed through your skin if you touch liquid or soil that is contaminated with it.

**For the general public, the levels of 2-hexanone found in the environment are lower than levels known to cause health problems.**

**The general public is not likely to be exposed to high levels of 2-hexanone.** You are more likely to be exposed if you work in coal gasification, oil shale processing, or wood pulping operations, or if you live near hazardous waste sites where it is found.

## How can 2-hexanone affect my health?

Breathing or swallowing a high dose of 2-hexanone may harm your nervous system. Workers exposed to 2-hexanone in the air for almost a year felt weakness, numbness, and tingling of the hands and feet. Similar effects were seen in animals that swallowed or breathed high levels of 2-hexanone.

Some studies in rats show that the male reproductive organs may be damaged by 2-hexanone. In pregnant rats exposed to 2-hexanone vapor, females did not gain as much weight during their pregnancy, had fewer offspring, and had offspring that were smaller than those not exposed. However, we do not know if 2-hexanone affects human reproduction or causes birth defects.

Both humans and animals exposed to 2-hexanone had lower body weight.

**The effects observed in animals occur at exposure levels much higher than normal human exposure.**

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## How can 2-hexanone affect children?

**The health effects of 2-hexanone exposure in children are not known.** However, it is expected to have the same effects in children as it does in adults.

## Can 2-hexanone cause cancer?

Studies in laboratory animals who breathed in or swallowed 2-hexanone for a long period of time did not find any cancer.

Neither the Department of Health and Human Services (HHS) nor the International Agency for Research on Cancer (IARC) have classified 2-hexanone regarding its carcinogenicity (whether it causes cancer or not). The Environmental Protection Agency (EPA) stated that “there is inadequate information to assess the carcinogenic potential” of 2-hexanone.

## Can I get a medical test to check for 2-hexanone?

There is a blood test for a metabolite (breakdown product) of 2-hexanone. However, since other chemicals can also produce this metabolite, this method does not show that you were exposed to 2-hexanone. If for some reason you do think you have been exposed, talk with your doctor or call poison control.

## How can I protect myself and my family from 2-hexanone?

**Most people don't need to take any special steps to avoid 2-hexanone in their daily lives.** If you live near a hazardous waste site or industry where 2-hexanone is a waste product, you should avoid spending time close to the site.

### 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 2-Hexanone: <https://www.atsdr.cdc.gov/ToxProfiles/tp44.pdf>

Go to ATSDR's Toxic Substances Portal: <http://www.atsdr.cdc.gov/substances/index.asp>

Find & contact your ATSDR Regional Representative at [http://www.atsdr.cdc.gov/DRO/dro\\_org.html](http://www.atsdr.cdc.gov/DRO/dro_org.html)