

## HEXACHLOROBUTADIENE

### What is hexachlorobutadiene?

Hexachlorobutadiene is a colorless liquid with an odor similar to turpentine. Hexachlorobutadiene evaporates easily. This chemical is also called hexachloro-1,3-butadiene, HCBd, perchlorobutadiene, 1,3-hexachlorobutadiene, or Dolen-Pur.

### Where is hexachlorobutadiene found and how is it used?

Hexachlorobutadiene does not occur in nature. It can result as a by-product from processing chemicals. Hexachlorobutadiene has never been produced as a commercial product in the United States. Some quantities are imported, mostly from Germany.

Hexachlorobutadiene is used to manufacture rubber, chlorofluorocarbons, and lubricants. It is used in fluids for transformers, hydraulics, gyroscopes, and heat transfer processes. Hexachlorobutadiene is also used in solvents, in laboratory processes, and in industrial processes.

### How can people be exposed to hexachlorobutadiene?

You could be exposed to hexachlorobutadiene through:

- **Breathing** hexachlorobutadiene vapors where it is made or used, or around hazardous waste sites where it was disposed.
- **Eating** fish or other food in contact with hexachlorobutadiene.
- **Drinking** water polluted with hexachlorobutadiene.
- **Touching** hexachlorobutadiene or water containing it.

### How does hexachlorobutadiene work and how can it affect my health?

Studies have not tested the effects of hexachlorobutadiene on humans. Mice that breathed hexachlorobutadiene for a short time showed nasal irritation. Animals who breathed high levels had low birthweight babies.

Rats and mice that drank low levels of hexachlorobutadiene over both the short and a long term had kidney and liver damage. Studies with rabbits found kidney and liver damage from short-term skin contact with hexachlorobutadiene.

Hexachlorobutadiene was named as a possible cancer-causing substance.

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## How is hexachlorobutadiene poisoning treated?

There is no treatment for hexachlorobutadiene poisoning. A doctor will treat the symptoms.

## What should I do if exposed to hexachlorobutadiene?

- **If you touch hexachlorobutadiene**, remove contaminated clothing. Wash skin with soap and water. Get medical help.
- **If hexachlorobutadiene gets in your eyes**, rinse your eyes with water for 15 minutes. Get medical help.
- **If you breathe hexachlorobutadiene**, move to fresh air. Get medical help.

## What factors limit use or exposure to hexachlorobutadiene?

Limit occupational exposure by using engineering controls, such as enclosing processes and ensuring healthy ventilation. Follow health and safety procedures. Wear respirators, protective clothing, and eye protection. People living near facilities that use or produce hexachlorobutadiene as a by-product (or who live near disposal sites contaminated with the hexachlorobutadiene) should avoid handling contaminated soil. If the drinking water is contaminated, drink only bottled water.

## Is there a medical test to show whether I've been exposed to hexachlorobutadiene?

Tests are available to measure hexachlorobutadiene levels and its breakdown products in blood, urine, or fat.

## Technical information for hexachlorobutadiene

CAS Number: 87-68-3

Chemical Formula: C<sub>4</sub>Cl<sub>6</sub>

Carcinogenicity (EPA): Group C – Possible human carcinogen.

Odor Threshold: 12 mg/m<sup>3</sup> (air); or 1.1 ppm

MCL (Drinking Water Standard): None

OSHA Standards: None

NIOSH Standards (REL): 0.02 ppm (average over an 8-hour workday)

ACGIH Standards: 0.02 ppm (average over an 8-hour workday)

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DELAWARE HEALTH  
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# Frequently Asked Questions

## Resources

Agency for Toxic Substances and Disease Registry (ATSDR). March 2021. *Toxic Profile for Hexachlorobutadiene*.

<https://wwwn.cdc.gov/TSP/ToxProfiles/ToxProfiles.aspx?id=865&tid=168> -

*Handbook of Environmental Fate and Exposure Data for Organic Chemicals*. Volume 1 Large Production and Priority Pollutants. Chelsea, MI: Lewis Publishers, Inc. 574 pp.

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