

US EPA ARCHIVE DOCUMENT

Pentachloronitrobenzene

CAS Number: 82-68-8

What is pentachloronitrobenzene?

Pentachloronitrobenzene is a substance that looks like cream-colored or colorless crystals and has a musty odor.

What is pentachloronitrobenzene used for?

Pentachloronitrobenzene is used to prevent the formation of slime in industrial waters. It is also registered as a fungicide that helps prevent or destroy the growth of fungus. It is primarily used to prevent the growth of fungi on grass, lawn flowers, ornamental crops, shrubs and in gardens. It has agricultural uses to protect cotton and grain seeds like barley, oats, rice and wheat from the growth of fungi.

How can pentachloronitrobenzene enter and leave your body?

Pentachloronitrobenzene can enter your body through breathing contaminated air, eating or drinking contaminated food or water and by skin contact.

How can you be exposed to pentachloronitrobenzene?

You can be exposed to pentachloronitrobenzene by eating contaminated food. Pentachloro-nitrobenzene typically builds up in the fatty tissues of animals. This means that eating beef, pork, poultry, fish as well as dairy products can be a source of exposure.

If you work in a business that makes or uses pentachloronitrobenzene you can be exposed if you breathe contaminated air or if your skin

comes into contact with the substance.

What are the health effects exposure to pentachloronitrobenzene?

The effects of long-term exposure of pentachloronitrobenzene on humans are not known. However, animal studies show that dogs exposed to pentachloronitrobenzene through diet experienced liver damage. Rats exposed to high levels of pentachloronitrobenzene show an enlarged liver and an increase in the weight of the liver.

What levels of exposure have resulted in harmful health effects?

No information or studies exist on whether pentachloronitrobenzene can cause cancer in humans. However, the U.S. Environmental Protection Agency (EPA) has classified it as a possible cancer causing substance because of the harmful effects seen in mice. For example, mice orally exposed to pentachloronitrobenzene experienced hepatomas, a cancerous tumor in the liver. In addition, skin tumors developed in rats after their skin was exposed to pentachloronitrobenzene.

The EPA has said that a reference dose of 0.003 milligrams per kilogram a day of pentachloronitrobenzene will not cause cancerous effects.

Where can you get more information?

Contact your state health or environmental department, or:

Agency for Toxic Substances and Disease
Registry
Division of Toxicology
1600 Clifton Road, N.E., E-29
Atlanta, Georgia 30333

References

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