

PERCHLOROETHYLENE

What is perchloroethylene?

Perchloroethylene is a man-made chemical that can be a liquid or a gas. At room temperature, perchloroethylene is a colorless liquid. As a vapor, this chemical has a sharp, sweet scent. Perchloroethylene is also called perc, tetrachloroethylene, tetrachloroethene, and PCE.

Where can perchloroethylene be found and how is it used?

Perchloroethylene is mainly used for dry cleaning. It has also been used as a general anesthetic, a substance used to numb people during surgery.

How can people be exposed to perchloroethylene?

You could be exposed to perchloroethylene through:

- **Breathing** it in the air if you work in a dry-cleaning business, or if you work where perchloroethylene is made. People who live above or near dry cleaning businesses can be exposed. In the home, dry-cleaned clothes can release small amounts of perchloroethylene. Perchloroethylene exposure can result from some hobbies. Some people have abused this chemical to get “high.”
- **Touching** liquid perchloroethylene if you work in dry cleaning or other industries that use this solvent.

How does perchloroethylene work and how can it affect my health?

It is not known if exposure to low levels of perchloroethylene causes health effects.

Short-term exposure to high levels of perchloroethylene causes dizziness, sleepiness, confusion, headache; and eye, nose and throat irritation. Exposed people may have trouble speaking or walking or may lose consciousness. Exposure to intensely high levels for a short time can be deadly.

How is perchloroethylene poisoning treated?

There is no specific treatment for perchloroethylene poisoning. Doctors can treat the symptoms and effects of exposure.

What should I do if exposed to perchloroethylene?

If you feel sick from perchloroethylene exposure, get fresh air right away. Remove exposed people from the source of exposure. Seek medical assistance.

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DPH 24/7 Contact Number: 1-888-295-5156

What factors limit use or exposure to perchloroethylene?

Generally, people do not face an increased risk of exposure to high levels of perchloroethylene unless they work in the dry-cleaning business or in industries that work with the chemical. Airing out dry-cleaned items before bringing them inside the home may reduce potential exposure.

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

Medical tests can detect perchloroethylene in the blood, urine, and exhaled breath.

Technical information for perchloroethylene

CAS Number: 127-18-4

Chemical Formula: C₂Cl₄

Carcinogenicity (IARC): is "likely to be carcinogenic in humans by all routes of exposure.

MCL (Drinking Water): 0.005 mg/L (5 ppb)

OSHA Standards: 100 ppm 8-hour Time Weighted Average; 200 ppm Ceiling.

NIOSH Standards: Lowest Feasible Concentration

Resources

Agency for Toxic Substances and Disease Registry (ATSDR). 2019. *Toxicological Profile for tetrachloroethylene*. Atlanta, GA: U.S. Department of Health and Human Services. <https://wwwn.cdc.gov/TSP/ToxProfiles/ToxProfiles.aspx?id=265&tid=48>

NIOSH Hazard Controls. *Control of Exposure to Perchloroethylene in Commercial Dry cleaning*. No. 97-155. October 1997.

NIOSH Hazard Controls. *Control of Exposure to Perchloroethylene in Commercial Dry cleaning (Substitution)*. October 1997.

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