CAS 127-18-4 **Perchloroethylene** (Tetrachloroethylene) (PERC) C₂Cl₄





Summary of Possible Health Effects

Perchloroethylene (PERC) has been linked to cancer in humans. It can damage the liver and kidneys of animals.

How is PERC used?

PERC has been used in dry-cleaning processes and for degreasing metals.^{1,2} It can be found in household products such as spot removers, lubricants, and water repellants.¹

Toxicity: What are its possible health effects?

According to the National Toxicology Program, PERC is reasonably anticipated to be a human carcinogen.¹ It has been found to cause liver and kidney damage in rodents and humans.³

Occupational exposures have been associated with esophageal and cervical cancer, as well as non-Hodgkin's Lymphoma. However, the results from occupational exposure data are inconclusive since there may be other chemicals contributing to negative health effects.²

Exposure: How can a person come in contact with it?

A person can come in contact with PERC by breathing it in, swallowing contaminated food and water, or from skin contact.¹

Inhalation is the main way people are exposed to PERC.¹ Studies conducted in New York City found much higher indoor air concentrations of PERC in apartments and a child care facility located in buildings that contained dry cleaning facilities.¹

Aside from its use in the dry-cleaning industry, PERC is also used in the production of chlorofluorocarbons and for degreasing metals.² It can be found in household products such as spot removers, lubricants, and water repellents. PERC has been identified in the Environmental Protection Agency's Urban Air Toxics Strategy as one of 33 hazardous air pollutants that present the greatest threat to public health in urban areas.⁴

References

1. U.S. Department of Health and Human Services, National Toxicology Program (2014). *Report on carcinogens, thirteenth edition*. Retrieved from https://ntp/roc/content/profiles/tetrachloroethylene.pdf

- 2. World Health Organization, International Agency for Research on Cancer (1995). *IARC Monograph on the evaluation of carcinogenic risks to humans, volume no 6: Dry cleaning, some chlorinated solvents and other industrial chemicals*. Retrieved from monographs.iarc.fr/ENG/Monographs/vol63/mono63-7.pdf
- 3. U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics (1994). *Chemicals in the environment: Perchloroethylene*. Retrieved from <u>nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=60001CBL.txt</u>
- 4. U.S. Environmental Protection Agency, National Air Toxics Program: Integrated Urban Strategy (1999). *List of the 33 urban air toxics*. Retrieved from www2.epa.gov/sites/production/files/2014-08/documents/07061999-fs-air-toxics-strategy.pdf