

TETRACHLOROETHYLENE (PERC)

FACT SHEET

North Carolina Division of Public Health • Occupational and Environmental Epidemiology Branch

Chemical Information

- Colorless liquid with a sharp, sweet odor.
- Nonflammable.
- Irritant to skin and eyes.
- Likely human carcinogen.
- Used as a dry-cleaning solvent, vapor de-greasing solution, drying agent for metals, and used to make other chemicals.

Hazards Identification

Acute Exposure:

- Can cause redness, blistering, and scaling of skin.
- Can also cause nausea and vomiting.
- Can cause irritability, impaired coordination, lightheadedness, headache, slurred speech, sedation, coma, and death.

Chronic Exposure:

- Results in memory and concentration impairment, vision disturbances, dizziness, and irritability.
- Can also cause inability to control body movements, sleep disturbances, and nerve damage.
- Can cause liver and kidney abnormalities.
- Can cause bladder cancer, Non-Hodgkin's lymphoma, and multiple myeloma.
- The Environmental Protection Agency (EPA) Acute Exposure Guideline Level 1 (AEGL - 1) for PERC is 35 ppm for an 8-hour period.

Stability & Reactivity

- Reacts with strong oxidizers, chemically-active metals such as lithium, beryllium & barium, caustic soda, sodium hydroxide, and potash.

Handling & Storage

- Should be stored in mild steel tanks equipped with breathing vents and chemical driers in cool, dry, well-ventilated locations.
- Separate from active metals, open flames and combustibles.

Glossary

The Environmental Protection Agency (EPA) defines Acute Exposure Guideline Levels (AEGLs) as threshold exposure limits for the general public that are applicable to emergency exposure periods ranging from 10 minutes to 8 hours. The three AEGLs are defined as follows:

AEGL-1 – airborne concentration of a substance at which the general population could experience notable discomfort, irritation or certain asymptomatic non-sensory effects.

AEGL-2 – airborne concentration of a substance at which the general population could experience irreversible or other serious, long-lasting adverse health effects or an impaired ability to escape.

AEGL-3 – airborne concentration of a substance at which the general population could experience life threatening health effects or death.

