

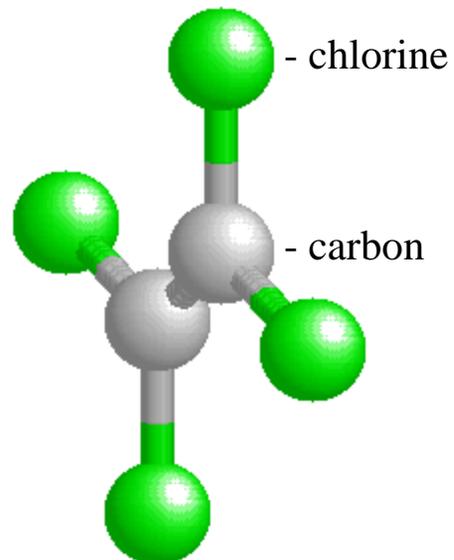
# WHAT IS PERCHLOROETHYLENE (TETRACHLOROETHYLENE or PCE)?

- Perchloroethylene (also called PCE) is a colorless, nonflammable manmade liquid.
- More than 80% of the PCE produced is used in the dry cleaning industry.

## Properties and Uses of Perchloroethylene

### Properties

- Colorless.
- Nonflammable.
- Evaporates when exposed to air.
- Dissolves slightly in water.



**Drycleaning Machine**

### Uses

- Dry-cleaning solvent.
- Printing inks.
- Typewriter correction fluids.
- Shoe polish.

# EXPOSED POPULATIONS

## HOW ARE PEOPLE EXPOSED TO PERCHLOROETHYLENE?

- Using products containing PCE.
- Working in dry cleaning facilities.
- Living above or near dry cleaning facilities.
- Drinking water containing PCE.



Solvent Spot Treating Machine



## PERCHLOROETHYLENE IN THE BODY

Perchloroethylene can enter the body:

- through the air we breathe,
- through the skin
- in the food or water we ingest

## KNOWN HEALTH EFFECTS

- Vapors are irritating to the skin, eyes and upper respiratory tract.
- Inhalation produces headache, dizziness, nausea and vomiting.
- Skin exposure causes redness and chapping.
- Long-term exposure may result in liver, kidney and central nervous system damage

# DISTRIBUTION IN THE ENVIRONMENT

## HISTORY

- PCE was first used in the U.S. in 1930s.
- Since 1989 the demand for PCE has declined about 35%.
- Demand for PCE is expected to continue to decline due to solvent recycling and changing technology.



**Solvent Recovery & Reprocessing Equipment**



## HOW PERCHLOROETHYLENE GETS INTO THE ENVIRONMENT

- Spills or leaks.
- Released into the air during use.

## PERCHLOROETHYLENE IN THE ENVIRONMENT

- PCE evaporates quickly in air.
- PCE passes quickly through the soil into underground water.
- PCE breaks down slowly in the environment.