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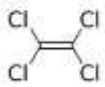
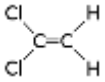


PCE

- Tetrachloroethene, Tetrachloroethylene, and PERC
- Produced commercially since 1925
- Used in dry cleaning since 1934, peak usage in 1980
- Used as a de-greaser for metals
- Used for stripping paint
- Used as an intermediate for Freon

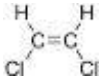
TCE

- Trichloroethene or Trichloroethylene
- 1930's began use for dry cleaning with limited use since the 1950s
- 1920's used for the extraction of vegetable oils (soy, coconut, palm) and coffee decaffeination
- 1930's – 1970's used as an anesthetic
- Mainly used for de-greasing metals



1,1-DCE

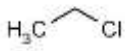
- 1,1-Dichloroethylene
- Used as a co-monomer in the poly-merization of vinyl chloride, acrylonitrile, and acrylates.
- Used in semiconductor device fabrication for growing high purity silicon dioxide (SiO_2) films.
- Was used in the production of Saran Wrap until 2004. It was polymerized to form polyvinylidene chloride.



cis-1,2-DCE

trans-1,2-DCE

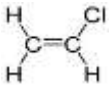
- Cis-1,2-Dichloroethylene
- Trans-1,2-Dichloroethylene
- Can exist individually, but often used as a mixture of the two
- Highly flammable, colorless liquid, with a sharp, harsh odor
- Often found as a mixture
- Used as a solvent for waxes, resins, polymers, fats and lacquers
- Often used as an intermediate in the preparation of other chlorinated solvents



ETHYL CHLORIDE

- Chloroethane or monochloroethane
- Once used in producing tetraethyllead (TEL), an anti-knock gasoline additive
- Colorless, flammable gas or refrigerated liquid with a sweet odor
- Used as a refrigerant, an aerosol spray propellant ,an anesthetic, and a blowing agent for foam packaging
- Today it is used in treating cellulose to make ethylcellulose, a thickening agent and binder in paints, cosmetics and similar products.

VINYL CHLORIDE



- Chloroethene
- Important in the production of the polymer polyvinyl chloride (PVC)
- Until 1974 it was used in aerosol spray propellant
- Was briefly used as an inhalational anaesthetic