



# Perchloroethylene End Use Applications

**Isomerization Grade:** Perc is used as a chloriding agent that provides a source of the chloride ion ( $\text{Cl}^-$ ) that acts as a catalyst promoter and reformer. The general requirements for chlorinated solvents in isomerization and regeneration applications are for a high purity product with a minimum amount of oxygen and nitrogen compounds. OxyChem's Isomerization Grade Perc with a minimum assay of 99.995% (wt.) and less than 1.5 ppm oxygen and no nitrogen meets these requirements. This grade meets the requirements of UOP.

**Fluorocarbon Grade:** Fluorocarbon Grade Perc is used as a basic raw material in the manufacture of chlorofluorocarbons (CFC's), principally trichlorotrifluoroethane (CFC-113), which is used in the electronics industry, in metal cleaning, and in dry cleaning. This grade of perc is also used in the synthesis of hydrofluorocarbon 134a (HFC-134a), and can be used for the synthesis of hydrochlorofluorocarbon (HCFC) 123,142b, and 141b.

**Technical Grade:** Tech Grade Perc serves as a carrier for solvents for fabric finishes, rubber, silicones and adhesives. It is used in paint remover formulations and printing inks and as an extraction medium. In addition, perc is a component of chemical masking formulation used to protect surfaces from chemical etchings in the aerospace and other industries. Perc is also used in wool scouring and as a solvent carrier in dyes and water repellents. The textile industry uses perc as a spotting agent for the removal of spinning oils and lubricants.

**Industrial Grade:** Industrial Grade Perc is a slightly higher stabilized version of Tech Grade Perc. Applications for Industrial Grade Perc are similar to those of Tech Grade, where a higher inhibitor content is required such as cold-cleaning operations. The use of Industrial Grade versus Technical Grade is usually at the customers/users discretion.

**Vapor Degreasing Grade:** Perc is selected for applications where the high boiling point (250°F) and greater volume of condensate are of advantage. These include removal of high melting point pitches and waxes, and removal of large quantities of water in solvent drying operations. Perc is particularly effective in cleaning of spot-welded seams and fine orifices and straight vapor cleaning of light metal parts. Meets requirements of FED OT-236c, Grade B; and ASTM D4376-02.

### Further Information

More detailed information on chlorinated solvent regulatory issues is available upon request through the OxyChem Technical Services Department. Call or write to:

Technical Service Department  
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