

Excess molar volumes and deviations in molar refractivity at 293.15 K for the
Binary and ternary systems of Propyl vinyl ether(PVE) + ethanol + 2,2,4-
Trimethylpentane

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Recently, alkyl vinyl ethers are increasingly produced as industrial solvents and chemical intermediates in the chemical or pharmaceutical industry. However their reasonable volatility caused significant emission into the urban atmosphere. Consequently they will be oxidized by OH⁻ and NO₃ radicals. For the synthesis and separation of these compounds, a reliable data of the physical properties and phase equilibrium behavior are required. However, relatively few investigations were reported for alkyl vinyl ether compounds and there is no data for propyl vinyl ether (PVE) as far as we know. Excess molar volumes (V^E) and deviations in molar refractivity (ΔR) at 293.15 K for the constituent binary and ternary systems of Propyl vinyl ether(PVE) + ethanol + 2,2,4-Trimethylpentane were determined from measured densities and refractive indices. The experimental V^E and ΔR were correlated with Redlich-Kister or Cibulka equation for the binary and ternary systems, respectively.