

## Liquid-Liquid Equilibria for Binary System of Propyl Vinyl Ether(PVE) + Water and the Ternary Systems of PVE + C1~C4 Alcohols + Water at 298.15 K

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Vinyl ethers (ROCH=CH<sub>2</sub>, where R is an alkyl group) are used in different industries, particularly as solvents, motor oil additives, for the manufacturing of coatings or as intermediates for the synthesis of flavors, fragrances and pharmaceuticals.<sup>1</sup> For the synthesis and separation of these compounds, a reliable data of the physical properties and phase equilibrium behavior are required. However, to date, only a limited number of studies have been performed on these type of compounds. Relatively very few investigations have been reported for alkyl vinyl ether compounds and there is no data for propyl vinyl ether (PVE) as far as we know. In this study, The tie-line end compositions of four ternary systems of Propyl vinyl ether(PVE) + C1~C4 alcohols + water were experimentally determined at 298.15 K by using a static apparatus. These C1~C4 alcohols are methanol, ethanol, 1-propanol, 2-propanol, 1-butanol and 2-butanol. Measured tie lines data have been correlated using the NRTL equations, and showed good agreement.