

Isothermal Vapor-Liquid Equilibrium at 323.15 K for the Binary and Ternary Mixture
of
Propyl vinyl ether (PVE) + 1-Propanol + benzene

김현덕, 황인찬¹, 곽해연, 박소진*
충남대학교; ¹충남대학교 화학공학과
(sjpark@cnu.ac.kr*)

Alkyl vinyl ethers such as methyl vinyl ether, 1-propyl vinyl ether, isopropyl vinyl ether, 1-butyl vinyl ether and isobutyl vinyl ether are usually used as industrial solvents and chemical intermediates in the chemical or pharmaceutical industry. Recently, they are used as raw materials for polymer electrolyte membrane fuel cells and as cellulose dyeing assistants. However their reasonable volatility caused significant emissions into the urban atmosphere. Thus, their behavior should be carefully observed and monitored for its effect in the environment. Reliable physical property and phase equilibrium data are required for this purpose, but, to date, relatively few investigations have been reported for alkyl vinyl ether compounds. To our knowledge, there are no data for n-propyl vinyl ether (PVE) except our previous work. In this work, isothermal vapor-liquid equilibrium(VLE) at 323.15 K for the binary and ternary systems of propyl vinyl ether + 1-propanol + benzene were measured with the help of headspace gas chromatography (HSGC).