

Measurement and correlation of Vapor-liquid equilibrium for mixtures composed of Allyl Chloride and Epichlorohydrin

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Epichlorohydrin is used in production of glycerol, epoxy resins elastomers and surfactants. Epichlorohydrin is manufactured by chlorohydration of allyl chloride. For the design of distillation column of separation process of Epichlorohydrin and ally chloride, vapor-liquid equilibrium data for binary systems composed of epichlorohydrin + allyl chloride were measured at atmospheric pressure. A circulation type phase equilibrium measurement apparatus was used and each phase was sampled and analyzed by gas chromatography and refractometer. The measured data were correlated by the UNIQUAC activity coefficient model and Nonrandom Lattice Fluid Equation of State with Hydrogen Bonding (NLF-HB EoS). The measured data were tested for consistency using Herrington Method.