

## Measurement and Correlation of Solubility for 2-hydroxybiphenyl (2HBP) in Acetone+ Water Solution

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2-Hydroxybiphenyl (2HBP) is widely used in cosmetics and food industries and high purity products are favorable. Crystallization process can be used to produce high purity product from solutions. Solid-Liquid Equilibrium (SLE) data are basis for design of such separation processes. In this study, the experimental solubility data of 2-hydroxybiphenyl (2HBP) in acetone + water solution were measured and correlated. The measurements were performed in a solubility measurement apparatus with an external thermostat. Compositions were analyzed gravimetrically. The solubility data points were determined at a temperature ranging from 298.15 to 323.15K and at ambient pressure. The volume ratios of water and acetone were varied as 20:5, 25:10, 15:10, and 15:15. The measured solubility data were correlated by UNIQUAC and NLF-HB (Norandom Lattice Fluid with Hydrogen Bonding) Equation of State.