147f Thermodynamic Insights of the Solubilization of an Epoxy Resin in Waterbby Means of a Non Ionic Surfactant Synperonic. Study of the O/W Microemulsion

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In this work a correlaetion between experimental results and the thermodynamic behavior of an O/W microemulson is presented. The dispersed phase is constituted by an epoxy resin and the surfactant employed is the non ionic poloxamer synperonic. The enthalpy of mixing, the dispersion sizes and the surfactant concentration were correlated to the microemulsion phase behavior using recet microemulsion theories. The characteristic dispersion size L is found to be close to the spontaneous radius of curvature of the film when Ro is small. Adiabatic compressibilities, apparent molar volumes and apparent molar adiabatic compressibilities were estimated from ultrasonic velocities and densities. The system studied was the ternary resin-water-synperonic.