

Solubilizing Action of Anionic (NaDeS, KDeS) and Cationic (TTAB, HTAB) Surfactants in Aqueous Solution at Different Temperature

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ABSTRACT

The solubilization of butanol-1 and t-butanol is observed visually in terms of excess of respective alcohol at which the turbidity first appeared in surfactant solution. The results are then confirmed by measuring the conductivity of surfactant solution with addition of varying amount of solubilizates. The solubility of alkanol does not change sharply at lower concentration of surfactant but after a certain concentration it goes on increasing and attains a maximum value at the CMC of surfactants. The solubilization below CMC has been attributed in terms of limiting association concentration (LAC) which describes shifting of CMC of surfactant to some lower concentration by the addition of solubilizate.

Keywords: Solubilization, Sodium decyl sulfate, Potassium decyl sulfate, tetradecyltri methyl ammonium bromide, Hexadecyltrimethyl ammonium bromide, Limiting association concentration.