# Mixed micellization and surface properties of non-ionic/cationic surfactants

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Description
We investigate the surface properties of aqueous binary mixtures of our cationic surfactant *O*-dodecyl-*N*,*N*′-diisopropylisourea hydrochloride (ISO-DIC $C_{12}$) with commercially available nonionic surfactant polyoxyethylene *p*-(1,1,3,3-tetramethylbutyl)phenyl ether (TritonX-100) at different temperatures (288 to 303 K). The micellization behavior of the binary systems is studied by determining the surface tension and other important physicochemical parameters, such as the critical micelle concentration (CMC), surface tension at the CMC($\gamma_{cmc}$), Krafft Temperature ($T_K$), maximum excess concentration ($\Gamma_{max}$), minimum surface area per molecule ($A_{min}$), surface pressure at the CMC ($\Pi_{cmc}$), and the adsorption efficiency (*pC20*) at the air/water interface. The study has additionally covered the calculation of thermodynamic parameters of micellization, including the standard Gibbs free energy, the standard enthalpy, the …