

Abstract

Surfactants are surface active agents. They are mainly chemicals, when added to water will reduce the surface tension of water and thus increases wettability on the given surface. Surfactants normally carry hydrophilic and hydrophobic ends among which hydrophilic end connects to water layer. The hydrophobic part connects between aqueous phase and the given hydrophobic surface through the hydrophobic end. However, these surfactants act as emulsifying agents or foaming agents. Further the chemistry behind the action of surfactants is introduced for the readers. Surfactants can be classified based on origin, charge on heads, solubility of water etc and is specified in this paper. Also synthesis of various types of surfactants are carefully incorporated in the chapter. The chapters dwells in detail the various sustainability related applications of surfactants which is relevant for sustainable living in the society.

Key words: Surfactants, Micelle, Bio Surfactants , Hydrophilic, Hydrophobic