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界面活性剤とサステナビリティ

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Surfactants and Sustainability

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Abstract

Surfactants have been contributing to the development of a clean and comfortable life as a main component of cosmetics and detergents. However, economic development would affect the balance of supply and demand for surfactants in the future. The current ways of using surfactants could cause a short supply in the future. In order for all consumers to sustain a comfortable life, surfactants are required to (1) be derived from extra vegetable oils (for the earth), (2) be highly surface active to maintain the product qualities (for consumers), and (3) be extremely water-soluble (for global use). Surfactant suppliers have the responsibility to develop technologies that can satisfy these requirements at the same time. Bio-based internal olefin sulfonate salt (Bio IOS), which was recently developed, is produced from C16 and C18 vegetable fats, which have been generally considered unsuitable as raw materials for surfactants. Moreover, it can satisfy the above (2) and (3) requirements, which are generally considered not to be compatible with each other. Thus, Bio IOS should be expected to be a novel trigger for the development of more sustainable surfactants.

Key words: internal olefin sulfonate, sustainability, surfactant, vegetable oil, SDGs.