

〈原 著〉

アニオン界面活性剤系におけるスメクタイトの 皮膚保護効果とその皮膚洗浄剤への応用

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Protecting Effect of Smectite for Human Skin in Anionic Surfactants and Application to Skin Cleanser

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Abstract

There are an increasing number of people who have a sensitive dry skin. Therefore, the demand for low irritant products has grown in the body soap market. To develop low irritant body soap, we focused on smectite, which is the main component of bentonites. In cosmetics, smectite is commonly used as an emulsifier, a thixotropant or a smoother of skin. To date, however, it has not yet been elucidated whether smectite in anionic surfactant has the protective effect on skin. After washing body with anionic surfactants containing smectite, smectite was found to be adsorbed onto the surface of the skin. The smectite on the skin inhibited the adsorption and permeation of surfactants into the skin. Smectite also reduced the release of cholesterol and pyrrolidonecarboxylic acid (PCA) from the skin, which suggests the protective effect of smectite for the skin. Body soap containing smectite was shown to be low irritating and inhibit reduction of the water concentration of stratum corneum after washing. It was supposed that smectite adsorbed onto the skin protects the skin from being irritated and over-cleansed by surfactants. And therefore, body soap containing smectite can be a skin-friendly cleanser.

Key words: smectite, protecting effect for human skin, skin cleanser, skin-friendly cleanser.