

Formulation, Development and Evaluation of Self Foaming No Rinse Body Wash

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ABSTRACT

The 2018 edition of UN World Water Development Report stated that nearly 6 billion people will suffer from clean water scarcity by 2050. Cutting back on water usage and saving the environmental balance is already seen as a focus area among the consumers, 27% global consumers are trying to reuse or use less water. Now a day it is the need of the hour to use less water while bathing. Hence, the present study was undertaken with the aim to formulate and develop self-foaming no rinse body-wash by using Methylperfluorobutylether as an active material. Methylperfluorobutylether is colourless, odourless, nontoxic, non-flammable liquid. It has self-foaming and cleansing property. Self-foaming no rinse bodywash were developed with two different concentrations of Methylperfluorobutylether; and final formulation with 3.5% of active was evaluated for functional parameters such as pH, colour, odour, appearance, cleansing effects, foaming ability, irritancy on skin. Also, the product was subjected to stability studies and subjective evaluation on panel of human volunteers. The results showed that the self-foaming no rinse bodywash (T-II) effectively cleanses skin with its self-foaming activity without using water and causing any harsh effects on skin.

Keywords:-Self-foaming no rinse bodywash, Methylperfluorobutylether, skin cleansing

I. INTRODUCTION

The worldwide water shortage is a huge area of concern. According to UNICEF 700 million people can be displaced by extreme water scarcity by 2030 [1]. The 2018 edition of UN World Water Development Report stated that nearly 6 billion people will suffer from clean water scarcity by 2050 [2]. Cutting back on water usage and saving the environmental balance is already seen as a focus area among the consumers, 27% global consumers are trying to reuse or use less water. Now a day it is the need of the hour to use less water while bathing. More than one in five adults have made changes into their bathroom routines for saving environment [1]. To save water and assure its sustainability, several companies are showing their dedication to reducing the water footprint of their systems. This approach includes sourcing sustainable raw materials, creating waterless, fast rinse-off or non-rinse formulas, finding an alternative water source [3].

The general purpose for skin cleansing is to lower the sebum, exogenous contaminants, to control odour and the skin microbiome. The surfactants in cleansers solubilize hydrophobic materials into the aqueous phase and enable their successive removal from the skin surface. The amphiphilic structure of surfactants,