



In Vitro Sun Protection Factor Evaluation of Sunscreens Containing Rutin and its Derivative

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SUMMARY. This research aimed at determining spectrophotometrically (290 to 320nm) the *in vitro* Sun Protection Factor (SPF) of sunscreens developed with rutin (R) or succinate rutin (SR), in association or not with UVB filter. Formulations were developed based on phosphate-base O/W emulsions, with (B) or not (A) the presence of polyacrylamide/C13-14 isoparaffin/laureth-7 (PIL), in accordance with the following associations: (a) control; (b) 1.0 % SR; (c) 0.1 % R; (d) 7.5 % ethylhexyl methoxycinnamate (EHMC); (e) 7.5 % EHMC + 0.1 % RS; (f) 7.5 % EHMC + 0.1 % R. It was verified a statistical significative elevation of the SPF from 13.93 ± 0.02 (Af) to 16.63 ± 0.27 (Bf) and also in relation to 15.53 ± 0.14 (Bd). According to the results, the EHMC had distinct behavior depending on the presence of bioactive substance and viscosity agent, thus, rutin obtained better profile as a SPF booster in these experimental conditions with the presence of PIL.

KEY WORDS: Bioactive substance, Rutin, Succinate rutin, Sunscreen, SPF.

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