

# Quantification of Total Phenols and Antioxidant Activity in Phytocosmetics <sup>†</sup>

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**Abstract:** The products made using natural assets have reached a great development in the modernity of the human being. The objective of this work was to determine the content of total phenols and antioxidant activity *in vitro* in cosmetic formulations (F1 and F2) of the O / W emulsion type made with oil (5%) of seeds of *Cucurbita argyrosperma* C. Huber (Cucurbitaceae). F1 also contains a wetting agent (propylene glycol), a gelling agent (carbopol), a neutralizing agent (triethanolamine), purified water with preservatives (methylparaben and propylparaben), and the oily component (Ceral PW®); F2 contains propylene glycol, nonionic emulsifying and gelling agent (Sepigel 305®), and purified water with preservatives. Total phenols were quantified by the Folin-Ciocalteu method. To determine the antioxidant activity, the technique of decolorization of the radicals DPPH<sup>°</sup> and ABTS<sup>°+</sup> was used. The values of total phenols found were (F1) 124 ± 0.001 and (F2) 136 ± 0.001 (µg EAG / g). F2 demonstrated greater antioxidant capacity with the radical DPPH<sup>°</sup> as with the ABTS reagent<sup>°</sup>, showing a direct relationship between the content of phenolic compounds and the antioxidant activity of phytocosmetics made with *Cucurbita argyrosperma* seed oil.

**Keywords:** total phenols; antioxidant activity; phytocosmetics.

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## Conflicts of Interest

The authors declare no conflict of interest.