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Development and stability study of cream obtained with cotton oil

Sheylla Maria Dias Couto[*1]; Marta Cristina de Menezes Pavlak[1]; Isis Prado Meirelles de Castro[1]; Juliane Farinelli[1].

[1]Faculdade de Farmácia, Universidade Luterana do Brasil – Centro Universitário Luterano de Palmas-TO. [*]email: sheylla_couto@hotmail.com

Introdution: Patients with dry skin presents a defective skin barrier function and moisturizing creams are effect for the treatment. Formulations containing vegetable oil help prevent TEWL [trans-epidermal water loss] and thus improve skin moisturizing. **Objetives:** This work aimed to evaluate physical-chemical quality of cotton oil and develop a cream formulation containing this natural compond. **Methods**: Cotton oil samples were obtained from the private industry Taji. In order to evaluate the quality of the cotton oil, physical-chemical tests (Kreis, acid value, saponification number) were performed (Adolf Lultz,1985). Formulation containing Disodium EDTA, Methylparaben, Proplylparaben, Cetyl Alcohol, Glicerin, Decyl Oleato, Cetearyl Alcohol (and) Sodium Cetearyl Sulfate and distilled water was obtained as control. An addiction of 5% of cotton oil was made at 40°C and mixed until cooling. The formulations were tested by centrifugation (3.000RPM for 30 minutes) and stability was evaluated for 6 alternated cycles of 24 hours 40°C ± 2°C and 24 hours -4°C ± 2°C. After each cycle physical-chemical parameters of phase separation, flocculation, pH were analyzed. **Results:** Physical-chemical tests showed no rancification of the sample in Kreiss test, 0,6% of oleic acid/100g as acid value and saponification number test result in 191,71mg KOH/g of oil. It was not observed any physical-chemical change in the formulation. The cream remained with normal aspect, with no color or odor changes and pH was maintained in 5-6 in all study period. **Conclusion:** Data obtained in this work suggests that the developed cream was stable in the preliminary stability tests. It is important to remind the necessity to evaluate this formulation in shelf time in order to guarantee its stability.

Keywords: Biocosmetics. Stability. Creams, Cotton Oil.

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