



Rinse-Off Moisturization Assay

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Tradename: ACB Fruit Mix

Code: 20343LNZ

CAS #: 7732-18-5 & 84082-34-8 & 91722-22-4 & 8028-48-6 (or) 84012-28-2 & 84929-31-7 & 91770-22-8

Test Request Form #: 5028

Lot #: 63965P

Sponsor: Active Concepts, LLC; 107 Technology Drive Lincolnton, NC 28092

Study Director: Maureen Danaher

Principle Investigator: Kara Rivera

Test Performed:

Rinse-Off Moisturization Assay

Introduction

An *in-vivo* study was conducted over a period of three days to evaluate the moisturization benefits of **ACB Fruit Mix** in a body wash formulation. 10 M/F subjects between the ages of 23-45 participated in the study. Results indicate that this material is capable of significantly increasing moisturization compared to the control.

The rinse off moisturization assay was conducted to assess the moisturizing ability of **ACB Fruit Mix** in a body wash formulation.

Materials

A. Equipment: DermaLab Skin Combo (Hydration/ Moisture Pin Probe)

Methods

The moisture module provides information about the skin's hydration by measuring the conducting properties of the upper skin layers when subjected to an alternating voltage. The method is referred to as a conductance measurement and the output is presented in the unit of uSiemens (uS). A moisture pin probe is the tool used to gather hydration values.

10 volunteers M/F between the ages of 23 and 45 and who were known to be free of any skin pathologies participated in this study. A Dermalab Corneometer was used to measure the moisture levels on the subject's volar forearms. The Corneometer is an instrument that measures the amount of water within the skin. The presence of moisture in the skin improves conductance therefore results in higher readings than dry skin. Therefore the higher the levels of moisture, the higher the readings from the Corneometer will be. Baseline moisturization readings were taken on day one of the study. The products used in the study included the control body wash, as well as the control body wash containing 5.0% ACB Fruit Mix.



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Body washes were applied to the treatment areas and rubbed in a circular motion for a 15-second cleansing period. Once washed, each treatment area was rinsed with warm water and patted dry with a paper towel. After the application, hydration measurements were recorded at 15 minutes, 1 hour, 8 hours and 24 hours. The body wash procedure and readings were repeated in succession for a total of 3 days. The formula used to calculate the percent increase in moisture is:

$$\% \text{ Moisture Increase} = ((\text{Average Moisture Increase} - \text{Average Baseline Value}) / \text{Average Baseline Value}) * 100$$

	INCI Name	% w/w
Water	Water	51.00%
M15008 Leucidal® Liquid	Leuconostoc/Radish Root Ferment Filtrate	4.00%
Colonial A0S-40	Sodium C14-16 Olefin Sulfonate	25.00%
Amphosol® HCG	Cocamidopropyl Betaine	20.00%

Table 1: Control body wash formulation

Results

ACB Fruit Mix showed very high moisturizing capabilities at a 5.0% concentration after 8 hours and 24 hours of application. An increase in moisture at 15 minutes and 1 hour post application did not occur. Please note, each value is an average of three consecutive readings per test site.

Average Percent (%) Change in Moisturization						
	Day One		Day Two		Day Three	
	8 Hours	24 Hours	8 Hours	24 Hours	8 Hours	24 Hours
5.0% ACB Fruit Mix in Body Wash vs Baseline	7.48	16.35	25.82	14.07	6.20	-2.35
Control Body Wash vs Baseline	-3.79	-0.34	16.20	17.35	-2.59	0.86
Untreated vs Baseline	2.25	2.63	0.11	-1.23	0.54	0.54

Table 2: Average Percent Change in Moisturization Compared to Baseline

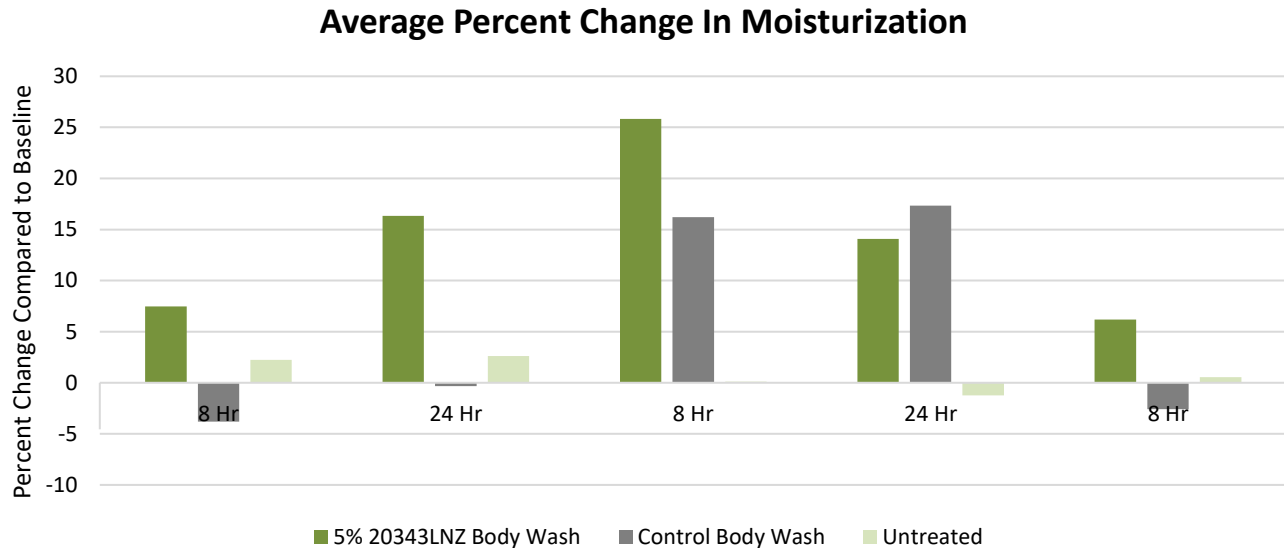


Figure 1: Average Percent Change in Moisturization Compared to Baseline

Discussion

As evidenced in a 3-day rinse-off efficacy study of **ACB Fruit Mix**, day one 8 hours moisture levels were improved by 7.5% and 16.4% at 24 hours when compared to baseline measurements. On day two, moisturization was improved by 25.8% after 8 hours and 14.0% after 24 hours. Results indicate that **ACB Fruit Mix** is capable of increasing moisturization over time when used in a rinse-off application.