

Tradename: Phytofuse Rejuvenate®

Code: 16882

CAS #: 93384-40-8

Test Request Form #: 5200

Lot #: 60675P

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

Study Director: *Maureen Danaher*

Principal Investigator: *Kara Rivera*

Test Performed:

Sensory Analysis Study

Introduction

Cosmetic products are designed to provide and elicit various sensory effects during application, in addition to the traditional physical beauty attributes and benefits. The physical experience of applying cosmetics is multi-dimensional and influences how consumers perceive products, demonstrating the importance of quantifying the sensory effects of a cosmetic product during application.

Accordingly, a Sensory Analysis Study was conducted to evaluate the physical experience and perceived sensory effects in relation to application of **Phytofuse Rejuvenate®**.

Study Principle

Participants apply products to their skin and quantify various sensory parameters on a rating scale associated with the product application.

Materials

A. **Products:** Base Lotion (Cetaphil® Moisturizing Cream for All Skin Types)

Methods

10 volunteers between the ages of 23 and 45, who were known to be free of any skin pathologies with Fitzpatrick skin types I to III, participated in this study (Table 1). Detailed methods of the Sensory Analysis are outlined below.

Table 1. The Fitzpatrick Classification of Skin Types Chart¹

Fitzpatrick Skin Type Descriptions*	
Skin Type	Description
I	Always burns, never tans
II	Burns easily, tans minimally
III	Burns moderately, tans to light brown
IV	Burns minimally, tans to moderate brown
V	Rarely burns, tans to dark
VI	Never burns, least sensitive to changes

*Adapted from The Surgeon General's Call to Action to Prevent Skin Cancer

After two test sites were identified on the volar forearm, participants were provided the parameter definitions (Table 3). In a randomized order, participants applied 0.2 g of the conditions described below (Table 2). While applying each condition, participants rated each characteristic on a scale from 1 to 10, with 1 indicating the lowest and 10 representing the highest perceived benefit (Table 3). T-tests were performed on the ratings for each parameter to determine differences and significance was accepted at $p \leq 0.05$.

Table 2. Descriptions of the Conditions and Treatments for each Skin Test Site

Skin Test Site	Condition	Treatment / Test Article Application Description
1	Base Lotion	Base Lotion
2	5.0% Phytofuse Rejuvenate ®	5.0% Phytofuse Rejuvenate ® in Base Lotion

Results

Applying 5.0% **Phytofuse Rejuvenate**® elicited greater perceived effects and higher overall skin comfort compared to the Base Lotion.

Table 3. Sensory Analysis Evaluation Average Ratings and p-values. Asterisks (*) indicate statistically significant differences at $p \leq 0.05$.

Parameter	Description	Base Lotion Ratings	Phytofuse Rejuvenate® Ratings	P-values
Pick-Up	Ability to pick-up product on finger	1.0	7.6	0.004*
Cushion Effect	When the movement of the product is lessened	2.3	6.7	0.009*
Slip	Ease of moving product	7.1	6.9	0.542
Spreadability	Ability to diffuse product over the surface of skin	4.7	6.9	0.030*
Drag	Skin friction, light tug during application of product	1.9	2.1	0.325
Coverage	Degree at which product covers the skin	6.6	8.9	0.041*
Velvety	Powdery after-feel	1.0	1.4	0.452
Silky	Smooth after-feel	5.4	8.5	0.045*
Tacky	Sticky after-feel	1.0	2.4	0.041*
Overall Skin Comfort	Satisfaction of skin feel	6.0	9.4	0.015*

Sensory Analysis Phytofuse Rejuvenate®

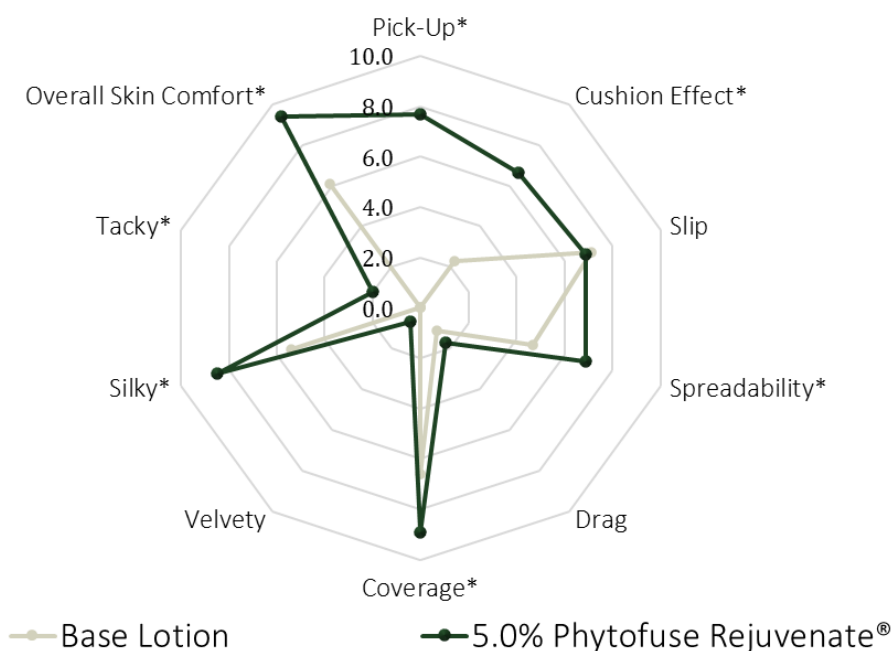


Figure 1. Visual Depiction of Sensory Analysis Ratings. Asterisks (*) indicate statistically significant differences at $p \leq 0.05$.

Discussion

A Sensory Analysis Study was conducted to evaluate the perceived sensory effects of **Phytofuse Rejuvenate®** compared to a Base Lotion when added to a personal care product applied on the skin.

The Sensory Analysis results reveal several positive physical characteristics of **Phytofuse Rejuvenate®** when added to a cosmetic product. As shown in Figure 1, 5.0% **Phytofuse Rejuvenate®** outperformed the Base Lotion in the majority of sensory parameters. However, the Base Lotion was rated as having a higher silk feel on the skin compared to 5.0% **Phytofuse Rejuvenate®**. Additionally, participants indicated 5.0% **Phytofuse Rejuvenate®** had significantly higher pick-up, cushion effect, spreadability, coverage, silky and tacky skin feel, and overall skin comfort when compared to the Base Lotion alone (Figure 1, Table 3). These results indicate 5.0% **Phytofuse Rejuvenate®** leaves behind desired perceived sensory effects, without a sticky or powdery after-feel.

Taken together, these results indicate **Phytofuse Rejuvenate®** augments the physical experiences and elicits positive sensory effects during application when added to personal care products at recommended use levels. Collectively, **Phytofuse Rejuvenate®** elicits a positive skin feel and contributes to the physical experiences of applying cosmetics.

References

- Sharma AN, Patel BC. Laser Fitzpatrick Skin Type Recommendations. [Updated 2022 Mar 9]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK557626/>