Poster ID – **AS-4**

Clinical Evidence of Improved Acne Marks and Skin Oiliness with Continuous Use of a Facial Sunscreen Containing 2% Trehalose and 2% Niacinamide in a Multiethnic Brazilian Population

Isabelle Rennó[1], Debora Felix[1], Cinthia Satake[1], Maria Carolina Semprini[1] , Marco Rocha[2] and Ana Espósito[3]

[1]Kenvue Brands LLC, São José dos Campos, SP, Brazil; [2] Federal University of São Paulo, Brazil; [3] University of Western São Paulo, Brazil

Introduction

- Oily skin is highly prevalent among Brazilians and clinically relevant due to its strong association with acne development, post-inflammatory sequelae, and psychosocial burden. These factors highlight the need for effective, individualized management strategies.
- Multifunctional sunscreens that combine high-efficiency optimized organic UV filters to promote broad-spectrum UV protection with sebum control, anti-inflammatory properties, and balanced hydration may represent a valuable adjunctive tool in managing oily skin and mild acne.

Objectives

Clinically assess the efficacy of sun protection factor (SPF) 70 sunscreen containing 2% Trehalose and 2% Niacinamide in

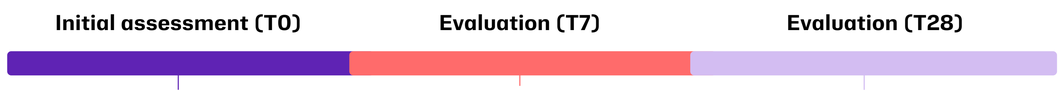
- Reducing acne marks after 28 days of continuous use* in a Brazilian mild acne population.
- Reducing skin oiliness and shine with balanced skin hydration/barrier integrity in Brazilian individuals with oily skin over a 28-day of continuous use of the product.*

Figure 1. Study Design

Clinical study on MILD ACNE population

*Both considering continuous use of same broad-spectrum SPF 70 facial sunscreen twice a day

Clinical study on OILY SKIN population



- Clinical efficacy evaluation by a dermatologist: counting of acne lesions such as open and closed comedones and acne marks (post-inflammatory erythema (AIE) and hyperpigmentation (AIH)) – T0, T7, T28.
- Images (VISIA): acne marks – T0, T7, T28.
- Tolerance evaluation by a dermatologist – T7, T28.
- Perceived efficacy questionnaire for acne and marks – T7, T28.

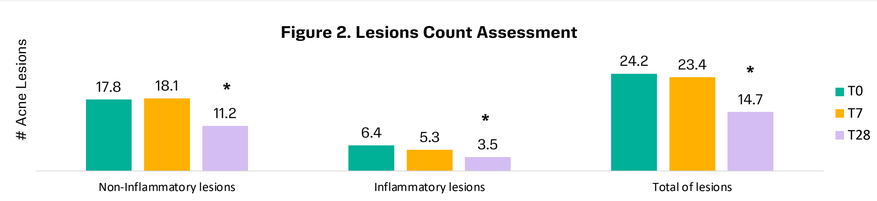


- Instrumental evaluation: sebumetry (forehead) for measuring oiliness reduction; Corneometry for hydration and transepidermal water loss (TEWL) – T0, T7, T28.
- Images (VISIA): evaluation of shine throughout use – T0, T7, T28.
- Perceived efficacy questionnaire at all time for shine and pores – T7, T28.

Clinical Improvement in Acne Lesions Count and Reduction of 56% in AIE and 46% in AIH in 28 Days

Demographic Data: 32 Participants | Age: 18–37 years | ♀ 74% ♂ 26% | Brown 54% | White 40% | Black 6% | Phototypes: II 20%, III 23%, IV 57%

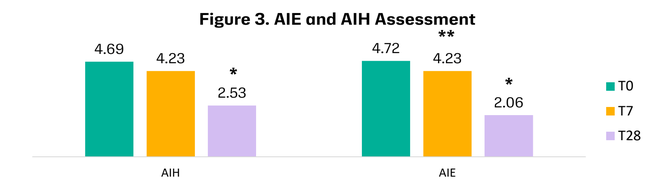
Figure 2. Lesions Count Assessment



*Reduction in acne lesion count after 7 days (T7) and 28 days (T28); significant improvements observed from baseline (T0); *p< 0.001*

Lesions: Total ↓ 37%, inflammatory ↓ 45.3%, non inflammatory ↓ 39.3% at Day 28

Figure 3. AIE and AIH Assessment



*Reduction in AIE and AIH after 7 days (T7) and 28 days (T28); significant improvements observed from baseline (T0). Scale from 0 (none) to 9 (severe/highly visible); *p<0.01; **p<0.049*

Acne Marks: AIE ↓ 56.4%, AIH ↓ 46.1% at Day 28 (p<0.001)

Participants with improvement:
AIE: 87%
AIH: 90%



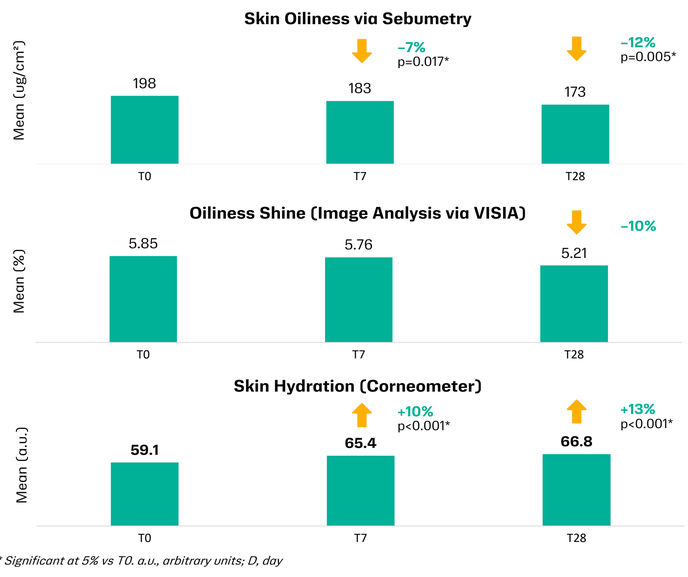
Participant's perception

After 28 days of product usage

- **78%** reported improved acne marks
- **68%** reported improved confidence
- **78%** reported improved the appearance of blackheads and whiteheads

Significant Reduction in Oiliness and Shine with a balanced hydration in Brazilian Oily Skin Population

Demographic Data: 32 Participants | Age: 21-50 years | ♀ 91% ♂ 9% | Brown 46% | White 51% | Black 3% | Phototypes: II 26%, III 23%, IV 40%, V 11% | Combination Skin 23%, Oily 68%, Very Oily 9%

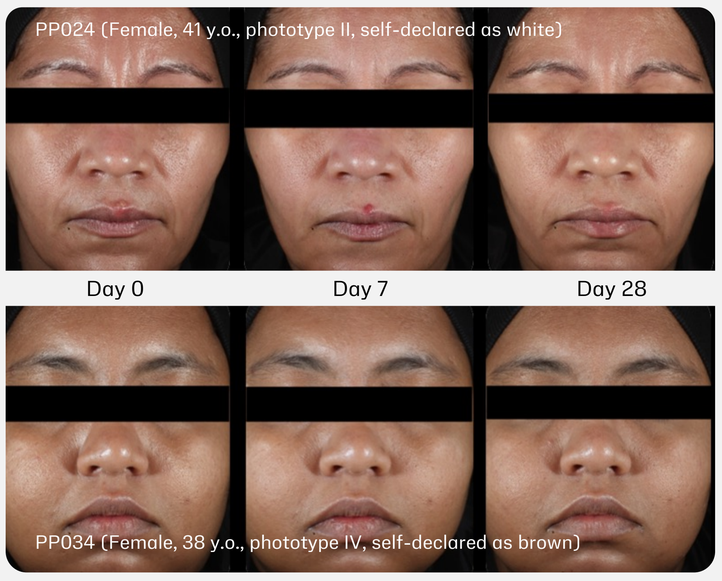


** Significant at 5% vs T0. a.u., arbitrary units; D, day*

61% of participants with improvement (D28)

75% of participants with improvement (D28)

84% of participants with improvement (D28)



Additionally, TEWL measurements showed *no significant* difference between D0 and D28, indicating that the **skin barrier was maintained**

Self-perceived efficacy after 28 days

- **80%** reported oiliness reduction
- **80%** reported shine control

Conclusions

- The sunscreen SPF 70 containing 2% Trehalose and 2% Niacinamide demonstrated clinically proven efficacy in reducing acne lesions and post-inflammatory marks (AIE and AIH) with continuous use.
- Visible improvement in acne induced erythema and hyperpigmentation contributed to enhanced skin appearance and patient satisfaction, reinforcing the importance of multifunctional sunscreens in acne-prone populations.
- Instrumental evaluations showed oiliness reduction (–12%) and shine decrease (–10%), while hydration improved (+13%) and skin barrier integrity was maintained, supporting a balanced skin condition.
- Efficacy was also perceived by participants, with 80% reporting reduced oiliness and 78% improved acne marks after 4 weeks of use.
- Beyond its primary role in photoprotection, this clinical study highlights the relevance of sunscreens offering additional benefits—oil control, acne reduction, hydration, and skin barrier maintenance—as an adjuvant strategy for managing oily and acne-prone skin, a highly prevalent condition in Brazil.

Disclosures: *This work was sponsored by Kenvue Brands LLC*
Author Disclosures: *All authors were employees of their affiliated institutions at the time of the research*

This data was already presented at the American Academy of Dermatology (AAD), March 27–31, 2026, Denver, CO, USA
European Academy of Dermatology and Venerology (EADV), September 30– October 3, 2026, Vienna, Austria