

PAE Complex® Oil Control

Ingredient Information

INCI Name: Aloe Barbadensis Leaf Juice (and) Phytic Acid (and) Fucus Spiralis Extract (and) Tetraselmis Chui Extract
 CAS# 94349-62-9, 83-86-3, -, -
 EINECS# 305-181-2, 201-506-6, -, -

Specifications

Color Yellow to dark yellow (8 Max)
 Appearance Clear liquid
 pH (as is) 4.0 – 5.0

Recommended use levels 3.3% – 10%

Attributes

- Exfoliating properties for skin and scalp
- Decreases sebum production
- Moisturizes skin and hair
- Reduces inflammation
- Provides chelating efficacy
- Easy to use in formulations

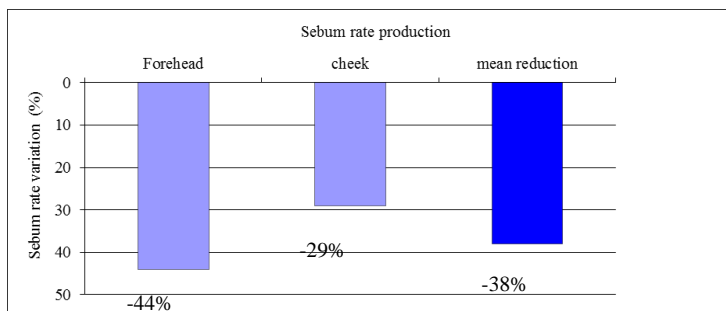
Applications

- Skin care
- Hair care

PAE Complex® Oil Control is a water soluble complex that provides numerous key attributes for use in skin and hair care applications. PAE Complex® Oil Control is easily added to formulations without the additional step of neutralization. Thanks to the properties of its ingredients, PAE Complex® Oil Control will exfoliate, moisturize, and soothe the skin and scalp allowing the active ingredient to penetrate more evenly and deeply to increase its efficacy.

PAE Complex® Oil Control utilizes the patented innovative active, Sebocea®, which originates entirely from algae. SEBOCEA® combines the properties of two algae: the marine green microalga Tetraselmis chui and the brown seaweed Fucus spiralis. Given the combined properties of these two algae, SEBOCEA® has been found especially beneficial in the treatment of seborrheic skin via the inhibition of 5 alpha-reductase and the inhibition of inflammation. Additionally, SEBOCEA® is able to scavenge damaging free radicals to protect the skin. SEBOCEA® enhances the complexion of oily skin by fighting hyperseborrhea, normalizing the sebum production, preventing skin irritation and improving the structure and the comfort of the oily skin.

The in vivo study has shown Sebocea® induces a significant decrease in the severity of oily skin conditions after 28 days of treatment. Results are expressed as % of sebum production at D28 vs zones at D0.

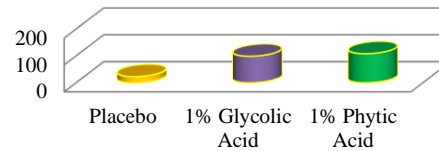


PAE Complex® Oil Control contains Phytic Acid to enhance the delivery of the SEBOCEA®. Phytic Acid has a unique structure which provides self-neutralizing activity that yields gentle keratolytic effects and aids in cell turnover. Proper exfoliation helps in maintaining healthy skin by removing the barrier of dead skin cells clogging the skin to uncover

the fresh new cells below to provide many benefits such as the reduction of clogged pores and breakouts, increased collagen production, fine lines are softened and appear less noticeable, dryness and flakiness are greatly reduced, and skin appears smoother with a more even-toned complexion. The efficiency of exfoliation was evaluated by the assessment of the desquamation process within the upper layers of the stratum corneum in human skin explants by counting released corneocytes.

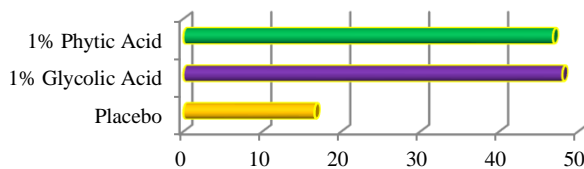
The topical treatment with formulation containing 1% Phytic Acid significantly increased the number of released corneocytes with respect to the placebo. The effect was comparable to that of the topical treatment with formulation containing 1% Glycolic Acid.

Avg number of released corneocytes



Desquamation was also evaluated by Transmission Electron Microscopy (TEM) for modified corneodesmosomal structure. The loss of corneodesmosomes integrity allows the detachment of corneocytes. These modifications decrease corneocytes' cohesion and enhance the exfoliation process.

Avg number of modified corneodesmosomes (%)



The topical treatment with formulation containing 1% Phytic Acid significantly increased the number of altered corneodesmosomal structures compared to the placebo. The effect was comparable to that of the topical treatment with formulation containing 1% Glycolic Acid.

With exfoliating efficacy comparable to Glycolic Acid, Phytic Acid is undoubtedly a mild alternative for skin care products and applications where harsh AHAs are not desirable. In hair care applications, Phytic Acid can aid in restoring scalp health through its keratolytic actions.

With the addition of Aloe Vera, **PAE Complex® Oil Control** retains the therapeutic properties that have been described throughout history. Aloe Vera has known healing and soothing properties. It contains a unique combination of amino acids, vitamins, minerals and enzymes which aid in keeping skin supple and in addressing issues like acne or eczema. Aloe Vera can relieve itching, inflammation and provide moisturizing benefits.

PAE Complex® Oil Control can be easily applied in various personal care formulations to deliver the multiple benefits of its ingredients.

Storage and Handling

Before handling please read the Material Safety Data Sheet and container label for safe use, physical and health hazard information.

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