

# PAE Complex<sup>®</sup> Hydration and Repair

## Ingredient Information

INCI Name: Aloe Barbadensis Leaf Juice (and) Glycerin (and) Phytic Acid (and) Laminaria Saccharina Extract  
 CAS# 94349-62-9, 56-81-5, 83-86-3, 90046-14-3  
 EINECS# 305-181-2, 200-289-5, 201-506-6, 289-982-1

## Specifications

Color Clear to Yellow (6 Max)  
 Appearance Clear liquid  
 pH (as is) 4.0 – 5.0

*Recommended use levels 3% - 15.15%*

## Attributes

- Exfoliating properties for skin
- Increases hydration
- Improves skin imperfections
- Reduces inflammation
- Moisturizes skin
- Provides chelating efficacy
- Easy to use in formulations

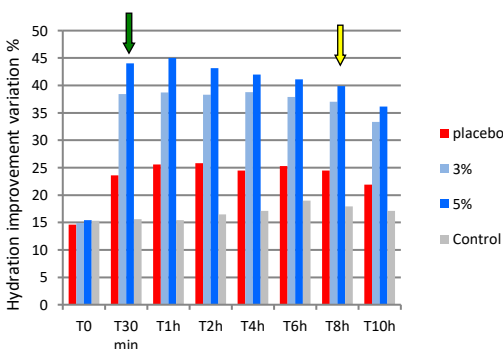
## Applications

- Skin care

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

PAE Complex<sup>®</sup> Hydration and Repair includes the innovative active, OCEA CARE<sup>®</sup>. This active utilizes the brown seaweed *Laminaria saccharina* which has been submitted to a biotechnological process in order to favour the bioaccumulation of Boron, known to have important roles in wound healing at low concentrations. OCEA CARE<sup>®</sup> combines Glycerin, Laminaria saccharina extract and Arginine to restore skin integrity by targeting several mechanisms involved in all three phases of normal wound healing, stimulating the proliferation of skin cells and maintaining skin hydration.

*Compared to placebo and untreated area, OCEA CARE<sup>®</sup> causes a noticeable immediate moisturizing effect of the outer layers of the skin that is maintained for at least 10 hours*



*Hydration gain with 5% OCEA CARE<sup>®</sup>:*

- +20% vs placebo after 30min application
- +15% vs placebo after 8h application



D0

D4

D12

*OCEA CARE<sup>®</sup> erases skin imperfections in just a few days. Skin appears softer, smoother and more hydrated.*



D0



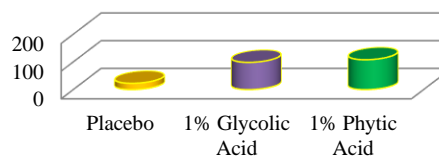
D4

**PAE Complex® Hydration and Repair** contains Phytic Acid to enhance the delivery of the OCEA CARE®. 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.

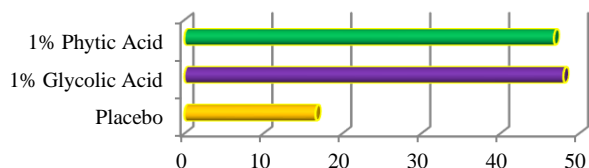
*The topical treatment with formulation containing 1% Phytic Acid significantly increased the number of released corneocytes with respect to the placebo. The effect was comparable to that of the topical treatment with formulation containing 1% Glycolic Acid.*

**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.

With the addition of Aloe Vera, **PAE Complex® Hydration and Repair** 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® Hydration and Repair** 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. This material should not be exposed to freezing conditions.

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