## NuovoSoft-16<sup>TM</sup>

Anti-Aging Skin Moisturizer Wrinkle Reduction



### NuovoSoft-16™

**INCI Name:** 

**Cetylhydroxyproline Palmitamide** 

CAS Number: 791838-11-4

#### **Description:**

NuovoSoft-16<sup>™</sup> is a high purity amino acid (C16/C16) waxy amide that can act as a bio-mimetic of a C16 ceramide. NuovoSoft-16 supports the skin barrier function through moisturization while maintaining skin suppleness and elasticity. Ceramide, itself, is one of the main components of the epidermis and forms the bilayer of cell membranes. NuovoSoft-16 will stabilize topical formulations, provide superior moisturization and emolliency. Additionally, it may provide the physiological and cell signaling benefits known for this class of waxy, 'cere' amides.

#### **Technical Data:**

Test/Properties:	Specification:
Appearance	White powder
Odor	Slight characteristic odor
Acid value, mg KOH/g	2~7
Loss on drying, %	2.0
Residue on ignition, %	0.5
Melting point, °C	45 ~ 55
Activity content, %	90
Bacteria, CFU/g	500

#### **Recommended Use Level:** 0.1% to 1.0%

#### **Cosmetic Applications:**

NuovoSoft-16 is recommended for anti-aging, skin moisturizing and wrinkle reduction. NuovoSoft-16 applications include anti-aging products, anti-wrinkle products, pore reduction products, facial moisturizers, eye creams, acne treatment products, skin lighting products, body firming lotions and sunscreen creams.



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#### In-vitro NuovoSoft-16<sup>™</sup> testing for TEWL and improved skin moisture

Healthy, supple and smooth skin will contain about 18% ~ 20% water by weight at the epidermis. Excessive loss through the stratum corneum will cause skin dryness. The initial benefit of NuovoSoft-16 is a measured increase in skin conductivity. The hydroxyproline portion has a strong affinity to associate water. A Cornrometer CM 825 was used to test water content in vitro. After a daily application of an anti-aging cream over two months.



The results show a moisture increase of 21.4% using 0.3% NuovoSoft-16 in an anti-aging cream over two months. An increase of 34.8% was measured at 0.5% NuovoSoft-16 over two months. The control group (CG) averaged a 5.2% increase using the same anti-aging cream without NuovoSoft-16.

#### In-vivo NuovoSoft-16<sup>™</sup> wrinkle reduction testing (using wrinkle depth contrast)

Through clinical trials and image analysis to study the effects of an anti-aging cream, also after two months use, we visibly observe a reduction in the depth of crow's feet lines around the lateral eye area which coincides with increased moisturization and a skin repair effect. The Visia skin 3-D filtered image analysis using a natural light source shows wrinkles we want to reduce in the images on the left. Visible fine lines were reduced by 36% after using 0.3% NuovoSoft-16 and 46% after using 0.5% NuovoSoft-16 in an anti-aging cream on the right. The results support a dose dependent response for NuovoSoft-16.



#### In-vivo NuovoSoft-16<sup>™</sup> wrinkle reduction testing (using 3D imaging)

Using the Visia skin 3 D imaging system, skin topography was measured as a density sequence of peaks and valleys running from the left under eye area to the left lower jaw line. The images are before anti-aging treatment and eight weeks after anti-aging treatment using 0.5% NuovoSoft-16. A significant improvement in contrast depth contours is recorded in the test area. Based on the scaling factors for the Visia imaging system, wrinkle length is shorter and wrinkle depth decreased as evidenced by the lower density sequence (reduced by 61%). These results support the anti-wrinkle efficacy of NuovoSoft-16 in a facial application.





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