ACTIVE BEAUTY

Neossance™ Squalane

High purity biotech squalane from sugarcane



High performance functionals
Emolients | Emulsifiers | Stabilisers

Givaudan
Human by nature

Focus on the product

High purity biomimetic emollient with consistent composition renewable source and reliable supply

Squalane is the stable form of squalene, a natural component of skin sebum. It is one of the highest quality and most versatile emollients on the market due to its sensorial profile, biocompatibility and consistently robust composition.

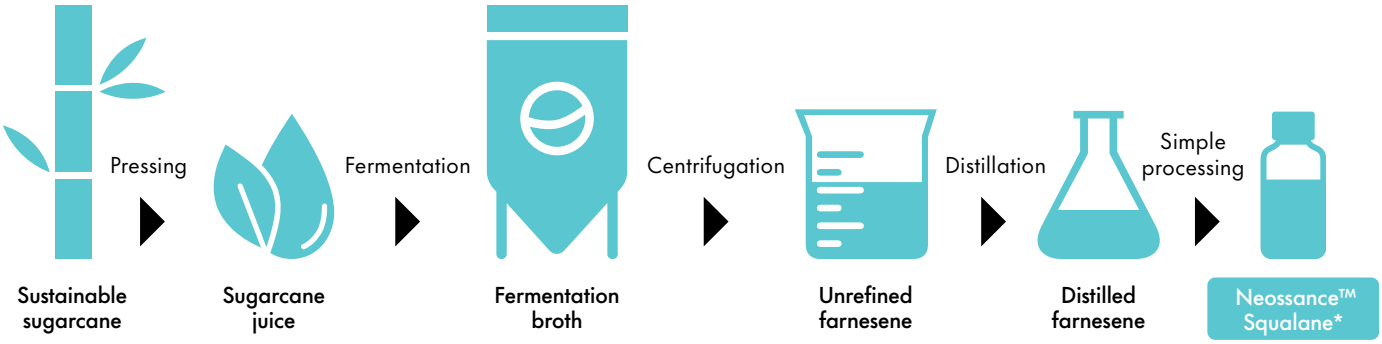
It is no-polar, fully saturated, and very stable hydrocarbon that is easily absorbed in the skin. It is an exceptional moisturiser, preventing moisture loss and imparting suppleness and flexibility to skin. Due to its exceptional properties, squalane has been a long time favorite of cosmetic formulators. Squalane provides silky, smooth and luxurious touch, without a greasy, heavy after feel.

With the lastest white (fermentation) biotechnology platform, Givaudan has developed Neossance™ Squalane, a unique process that enables the production of plant sugar derived, highly pure squalane.

Neossance™ Squalane resists oxidation and is stable to UV and temperature variations. It has a consistenly robust composition.

Power of Biotechnologies – Leading in "Active Beauty"

As one of the leaders in "Active Beauty", trying to shape the future with cleaner and better solutions, it was a natural challenge to develop a new and revolutionary squalane, obtained through white biotech with the highest quality in the market from susbtainable Brazilian sugarcane.



*1kg of Neossance™ Squalane = 88L of water usage

Sustainable and Ethical Sourcing with Bonsucro Certification Providing Consumer with Certified Transparency



Givaudan's Neossance™ Squalane is made via (white technology) fermentation of Bonsurco-certified renewable sugarcane. Our sugarcanes grow in coastal Brazil without irrigation and far from the forest. Bonsucro is a global non-profit organization funded by the World Wildlife Foundation that promotes sustainable sugarcane production, processing, and trade.

The platform ensures brands and consumers can have complete condfidence that Givaudan's cosmetic ingredients are made substainably and ethically from the start.

Biological activity

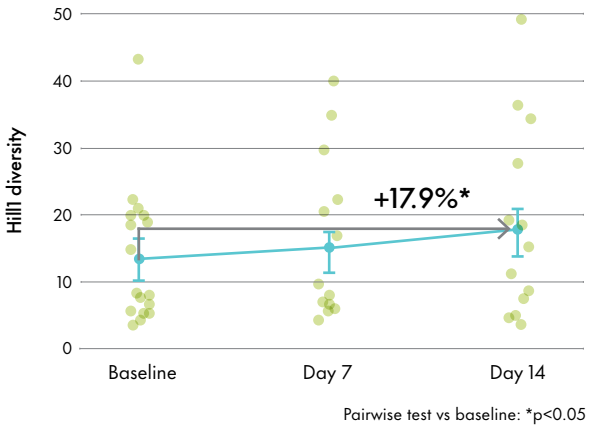
Neossance™ Squalane promotes microbiome diversity for younger and healthier skin (*in vitro*)

Study was performed on 17 panelists with 100% Neossance™ Squalane as a face oil 2x daily for 14 days. Microbes were sampled from cheeks and T-zone at baseline, day 7 and 14.

Samples were sequenced using a 16S rRNA gene-based amplicon approach to characterise skin bacterial communities.

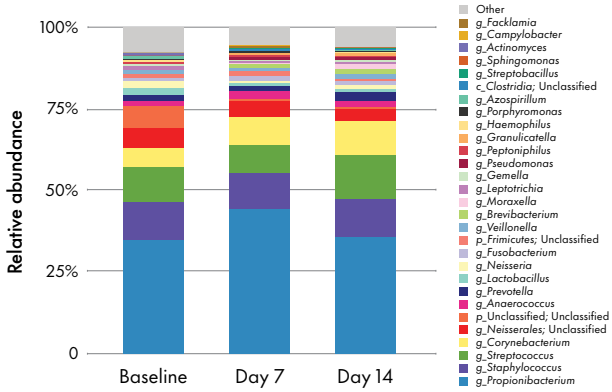
The analysis aimed to quantify these concepts from the perspectives of bacterial alpha diversity (e.g. number of species in a sample), beta diversity (i.e., compositional similarity between samples and groups), and changes in individual bacterial abundance.

Increases microbiome diversity



Pairwise test vs baseline: *p<0.05

Maintains microbiome stability



Results: Neossance™ Squalane increases bacterial diversity at 14 days by 17.9%, which is a characteristic of younger and healthier skin.

Give consumers balanced and healthy skin

Using Neossance™ Squalane in personal care applications can support healthy and younger-looking skin health to meet this demand. Study demonstrates the application of Neossance™ Squalane meets the following criteria:

1/ it is free from contamination

2/ it increases bacterial diversity without harming growth

3/ it maintains a healthy microbiome balance, or variety of bacterial composition

4/ it does not disturb skin balance. There is also indication that application of Neossance™ Squalane resulted in greater increase of diversity in people with dry skin.

Efficacy

An easy way to reverse aging on our skin! (clinical study #1)

A double blind clinical evaluation was carried out on 30 volunteers (women from 40 to 60 years old), divided into 2 groups. Volunteers applied a cream twice a day on the face either containing Neossance™ Squalane (5%) or the same exact formula without the emollient as a placebo, for 28 days.

Skin moisturisation was measured by DermaLab Evaporimeter, skin elasticity was measured by Cutometer and skin roughness was measured by Visoscan.

1. Skin moisturisation

Evaluation performed using DermaLab Evaporimeter to measure the reduction of Transepidermal Water Loss(TEWL) associated with the improvement of skin barrier integrity.

Results: Neossance™ Squalane significantly reduces Transepidermal Water Loss (TEWL) after 28 days of use, by respectively -18%, up to 7 times better than the placebo.

2. Improvement in skin elasticity

Evaluation performed using Cutometer to measure the skin viscoelastic properites.

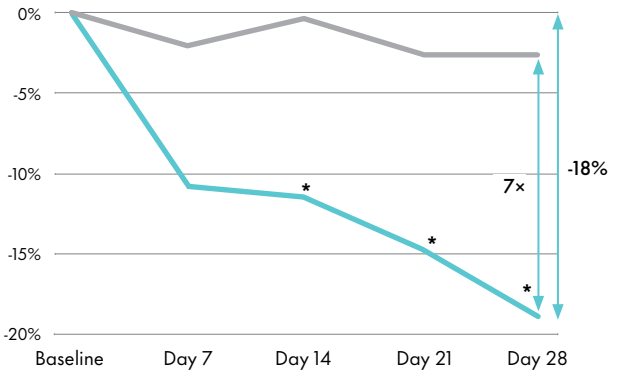
Results: Neossance™ Squalane significantly increases skin elasticity after 28 days of use, by respectively +10%, up to 4 times better than the placebo.

3. Reduction in skin roughness

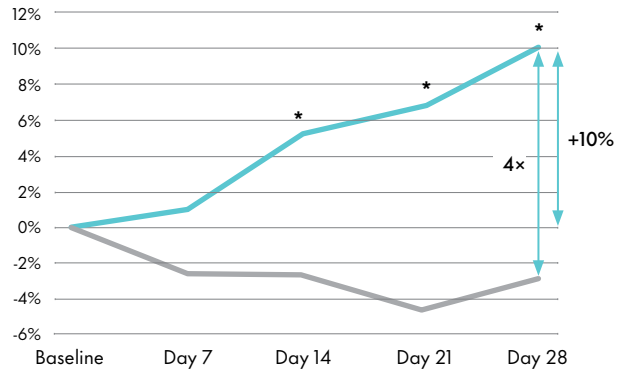
Evaluation performed using Visioscan with measurement from a software to convert pixels out of a direct image of the living skin.

Results: Neossance™ Squalane significantly decreases skin roughness after 28 days of use, by respectively -28%, up to 4 times better than the placebo.

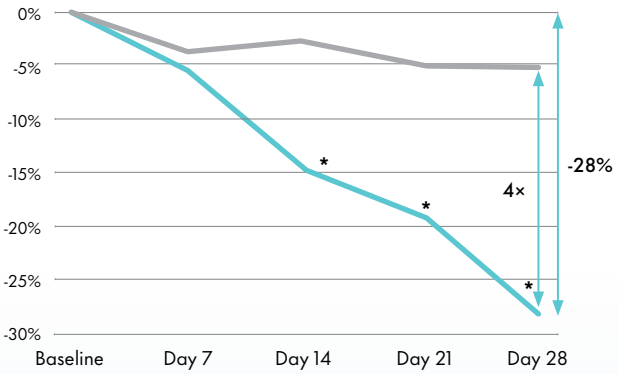
Reduction of Transepidermal Water Loss (TEWL)



Average % improvement in skin elasticity



Average % reduction in skin roughness



Placebo — TRT - Face cream (5% Neossance™ Squalane)

Student's t-test vs baseline: *p<0.05

Summary

Technical information

INCI:	Squalane
Origin:	White biotechnology (Fermentation) from Sugarcane
Preservation:	Preservative free
Appearance:	Nearly odourless and colourless
Solubility:	Liposoluble
Dosage:	1% to 100%
Processing:	Can be added to the oil phase in hot or cold process with a full pH range.

Claims

Claims:	Moisturises, Improves skin elasticity, Reduced the appearance of wrinkles and fines lines, Enhances skin barrier integrity, Promotes cell turnover, Brightens skin, Absorbs quickly and Non-comedogenic.
Applications:	Skincare, Haircare, Sun care, Colour Cosmetic, Actives Delivery.

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