

SQUALANE

BIOTECH EDGE

Derived through advanced yeast fermentation followed by precise hydrogenation of squalene, Squalane represents a highly stable, skin identical emollient engineered by biotechnology. Structurally analogous to the lipids naturally present in human sebum, it integrates seamlessly into the skin barrier to reinforce hydration, enhance softness, and prevent moisture loss.

It is pure, non-polar profile delivers exceptional spreadability, rapid absorption, and long-lasting comfort without greasiness. Biotechnologically refined for superior purity and safety, Squalane offers biomimetic nourishment, barrier resilience, and universal skin compatibility across formulations. Its oxidative stability makes it ideal for modern cosmetic formulations requiring performance, safety, and sensory elegance.



PRODUCT DETAILS

INCI name:

Squalene

Recommended Dosage:

0.1% - 50%

Purity:

≥ 97%

Appearance:

**Colourless , clear
viscous liquid**

APPLICATIONS :



Daily care lotions and
intensive moisturizing creams



Repair and recovery
treatment masks



Anti-ageing cream



Sensitive and acne-
prone skin formulations



Hair care formulations for
overall protection and softness



Hydrating facial waters and
barrier-boosting essences

KEY FEATURES :

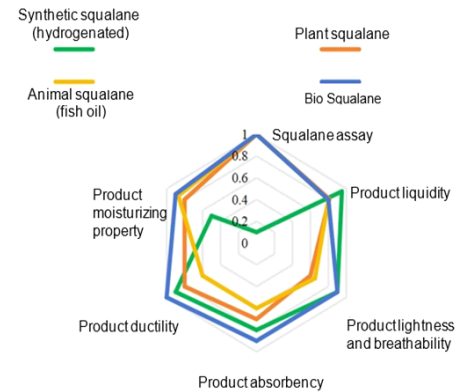
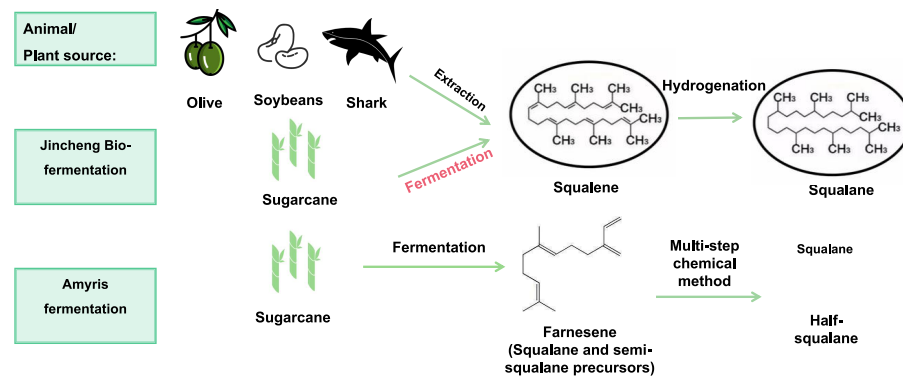
- Suitable for all skin types, including sensitive, dry, and acne-prone skin with low tolerance.
- Ideal for thin and fragile keratin layers and redness-prone skin.
- Supports compromised skin barriers and improves overall skin tolerance.
- Provides lasting moisturization for dry, dehydrated, and rough skin conditions.
- Forms a highly stable microemulsion on dilution, enabling easy processing and formulation flexibility.
- non-animal origin and eco-friendly.

WHAT IT BRINGS TO YOUR FORMULATION :

- Reinforces the stratum corneum with a biomimetic lipid, enhancing barrier integrity and reducing TEWL.
- Improves tolerance in sensitive or fragile skin by stabilizing keratin structures.
- Provides lightweight, non-occlusive emolliency with excellent spreadability.
- Replenishes lipids to support hydration, smoothness, and relief from dryness.
- Compatible across emulsions, anhydrous, and water-soluble systems, including acne-prone formulations.

Production Process:

From sugarcane, squalene is produced through fermentation and further hydrogenation to squalane



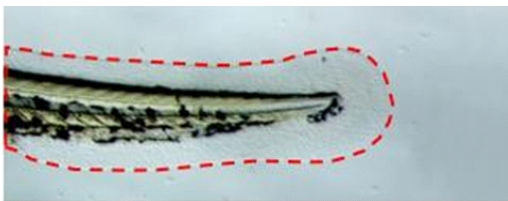
Higher purity compared to plant-based sources
Fewer chemical synthesis steps compared to other fermentation processes

Skin Feel Performance of Squalane from Different Sources

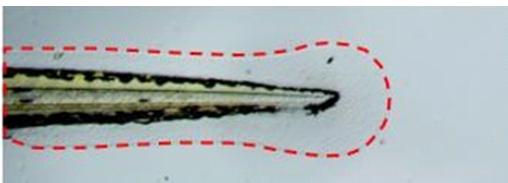
EFFICACY STUDIES :

Moisturizing

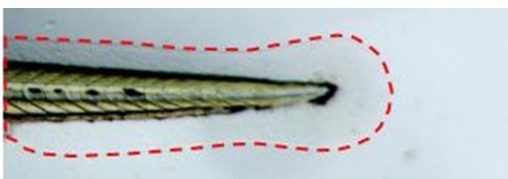
Assessment of squalane mediated moisturization on zebrafish tail compared to model control. The squalane treated group demonstrated a remarkable reduction in tail area damage, significantly outperforming the model control, showing superior moisturizing performance.



Model control group: The moisturizing effect was not significant (0% reduction in tail area inhibition rate)



The moisturizing effect is remarkable (with a 30% reduction in the size of the tail area)



The moisturizing effect is remarkable (with a 99% reduction in the size of the tail area)

CLINICALLY PROVEN BENEFITS:

- Significant improvement in skin moisturization, with up to 99% reduction in tail area damage.
- Immediate and long-lasting moisturization.
- Strengthens and supports skin barrier recovery.
- Improves skin softness, smoothness, and elasticity.
- Excellent skin tolerance for daily use.
- Suitable for all skin types, including sensitive and acne-prone skin.
- Strengthens and supports skin barrier integrity