

Phytosqualan

High performing natural emollient
Bringing efficient moisture
and upcycled from olive oil



I IDENTITY

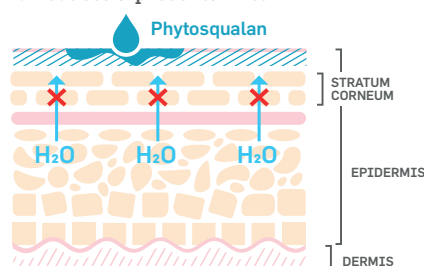
SQUALANE:



Phytosqualan is a natural vegetable squalane, sourced from olive, and recognized as a high quality emollient in cosmetic formulas. Upcycled from olive oil residues, 95% of the byproducts produced during its manufacturing process are valorized.

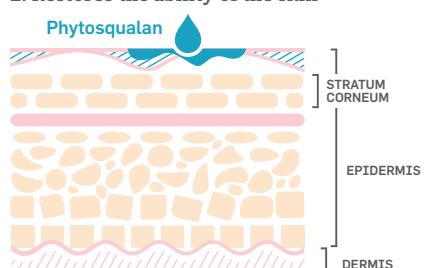
Squalene molecule is a major component of human sebum also found in plants such as olive. After its extraction, its hydrogenation gives squalane, a highly stable molecule, used as a high performing, dry emollient.

1. Reduces & prevents TEWL



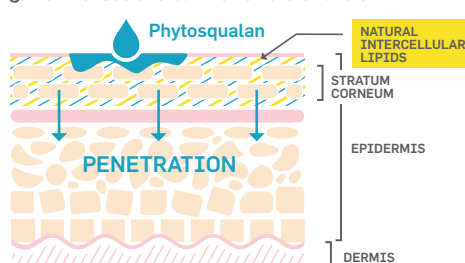
- Increases occlusion & creates a hydrophobic barrier.

2. Restores the ability of the skin



- Smooths the skin surface by flattening & makes the skin surface soft, supple & flexible.

3. Reinforces the barrier's role of the skin



- Replaces & reinforces natural lipids of the skin.

I PROPERTIES

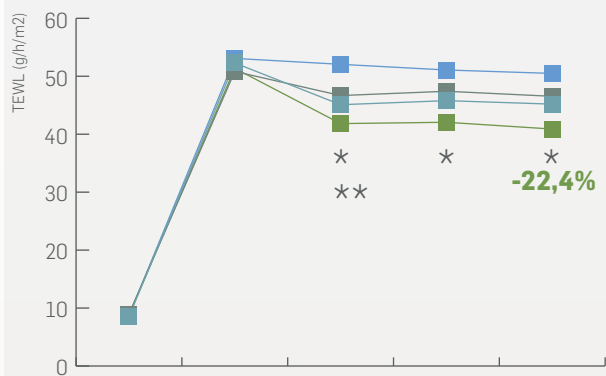
Phytosqualan is sourced from olive oil, and offers a large choice of key properties:

- **An efficient moisturizer:**
 - Supports lipid barrier regeneration, and skin natural hydration,
 - Helps to reduce TEWL,
 - Helps to reduce fine lines and wrinkles, thanks to its moisturizing properties,
 - Phytosqualan is non comedogenic
 - Phytosqualan is biodegradable
- **An asset carrier:**
 - Used as a vector for active ingredients thanks to its ability to penetrate the skin.
- **A unique sensory agent to develop soft textures:**
 - Smoothness,
 - Good penetration thanks to its biocompatibility with the skin,
 - Non-greasy effect,
 - Improved spreading,
 - Reduced oily appearance.

OBJECTIVATION

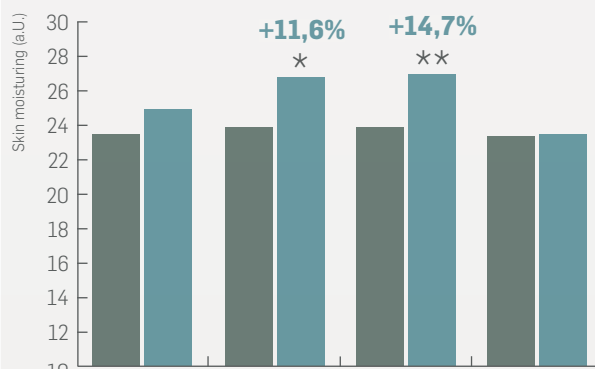
Results from SOPHIM's clinical study, available on demand.

LIPID BARRIER RESTORATION



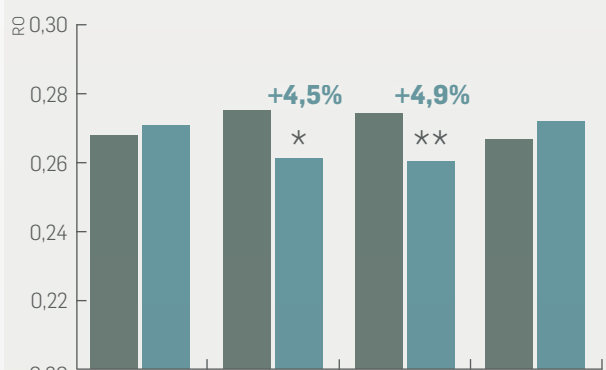
After 28 days, the use of Phytosqualan reduces TEWL by 22,4 %

SKIN MOISTURIZING



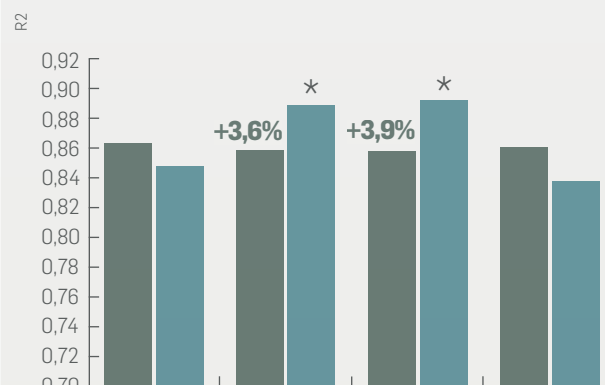
After 28 days, the use of Phytosqualan improves skin moisturizing by 14,7 %

SKIN FIRMNESS



Phytosqualan has a positive influence on skin firmness

SKIN ELASTICITY



Phytosqualan has a positive influence on skin elasticity

RQ value inversely proportional to skin compactness;
reduction of this parameter indicates improvement of skin firmness

Cream A: 5% Phytosqualan - Cream B: Placebo - Cream C: 10% Phytosqualan

*: $p < 0,05$ **: $p < 0,01$



GENERAL INFORMATION

- **Description:** clear liquid colourless, odourless
- **INCI:** squalane
- **CAS number:** 111-01-3
- **Reach registration number:**
01-2120014832-65-0000
- **Origin:** olive
- **Natural Origin Index (ISO 16 128):** 1
- **Storage conditions:** ambient t° ($< 25^{\circ}\text{C}$)
dry place away from heat and light sources
- **Patent:** PCTFR2009 / 051287
- **Certifications:** China approved
CSAR: Registered N°003432-00566-3484
Japanese standards QD grade available



FORMULATION

SQUALAN	
Polarity	Non-polar
Molecular Weight	422,8 g/mol
Formula	$\text{C}_{30}\text{H}_{62}$

PHYTOSQUALAN <i>Typical value</i>	
APHA color <i>ISO 6271</i>	≤ 10
Cloud point <i>ASTM D2500</i>	$\leq 0^{\circ}\text{C}$
Density, 20°C <i>ISO 18301</i>	0,821 kg/L
Refractive index, 20°C <i>ISO 6320</i>	1,4575
Dynamic viscosity <i>ASTM D7042</i>	20 $^{\circ}\text{C}$: 47 mPa.s 40 $^{\circ}\text{C}$: 19 mPa.s
Acid value <i>ISO 660</i>	$\leq 0,1$ mg KOH/g
Saponification value <i>ISO 3657</i>	$\leq 0,5$ mg KOH/g
Iodine value <i>ISO 3961</i>	$\leq 1,5$ g $\text{I}_2/100\text{g}$
Delta $^{13}\text{C}/^{12}\text{C}$ <i>Origin authenticity</i>	-28,5 ‰

FORMULATION HINTS



Cold and hot processes



Recommended dosage
3 to 10 %* or to 100 %
*China approved: 3-10 %



Compatibility



Solubility

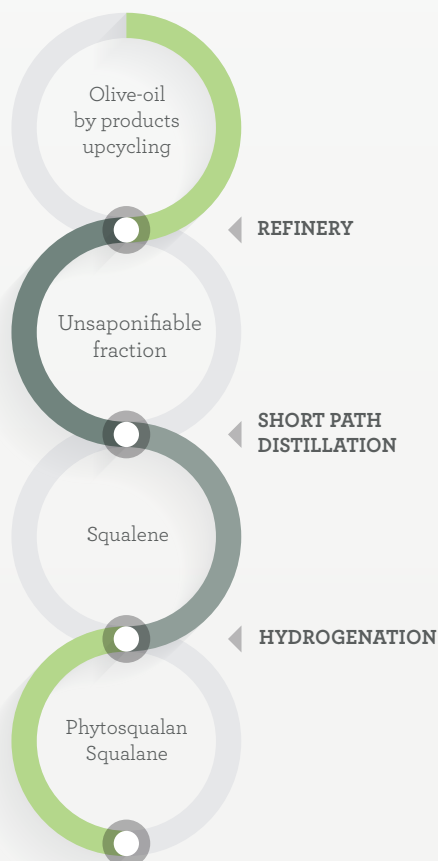
- strong in oils & organic solvents
- low in alcohols



Stability:
to oxidation and heat

PROCESS

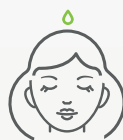
Local sourcing
Fully integrated manufacturing process



APPLICATIONS



Skin care
Regenerating, soothing



Hair care
Texturizing, repairing



Sun and after-sun care
Carrier for actives,
nourishing, regenerating



Body care
Moisturizing, regenerating



Make up
Spreading, softening



Solid cosmetics
Spreading, moisturizing



I FORMULATION

MASSAGE OIL: Bliss

TRADE NAME	INCI NAME	SUPPLIER	%
OR DEO SESAME OIL	Sesamum Indicum Seed Oil	SOPHIM	69.70
BIOPHYTOSEBUM OR	Olive Oil Decyl Esters (and) Squalene	SOPHIM	10.00
OR DEO ARGAN OIL	Argania Spinosa Kernel Oil	SOPHIM	8.00
PHYTOSQUALAN	Squalane	SOPHIM	5.00
OR VIR BAOBAB OIL	Adansonia Digitata Oil	SOPHIM	5.00
	Fragrance		1.20
OR POMEGRANATE OIL	Punica Granatum Seed Oil	SOPHIM	1.00
SKINFEEL TOCO 70 NON-GMO	Tocopherol (and) Helianthus Annuuus (Sunflower) Seed Oil	SOPHIM	0.10
TOTAL			100.00

Manufacturing process available on request



YouTube Video



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