

NORDMANN

Minimizing Pores: the New Anti-aging Trend?

Forum for Innovation – SEPAWA 2022

Annika Kramer – 26.10.2022

Agenda

A top-down view of various natural skincare products and botanicals arranged on a white wooden surface. The items include a clear pump bottle with yellow liquid, a small amber bottle with a black cap, a jar of green gel, a jar of light green cream, a jar of white cream, and several types of fresh green leaves and ferns scattered around the products.

1. Pores and the effect of aging

2. Active ingredients

3. Additives

4. Formulation

5. Conclusion

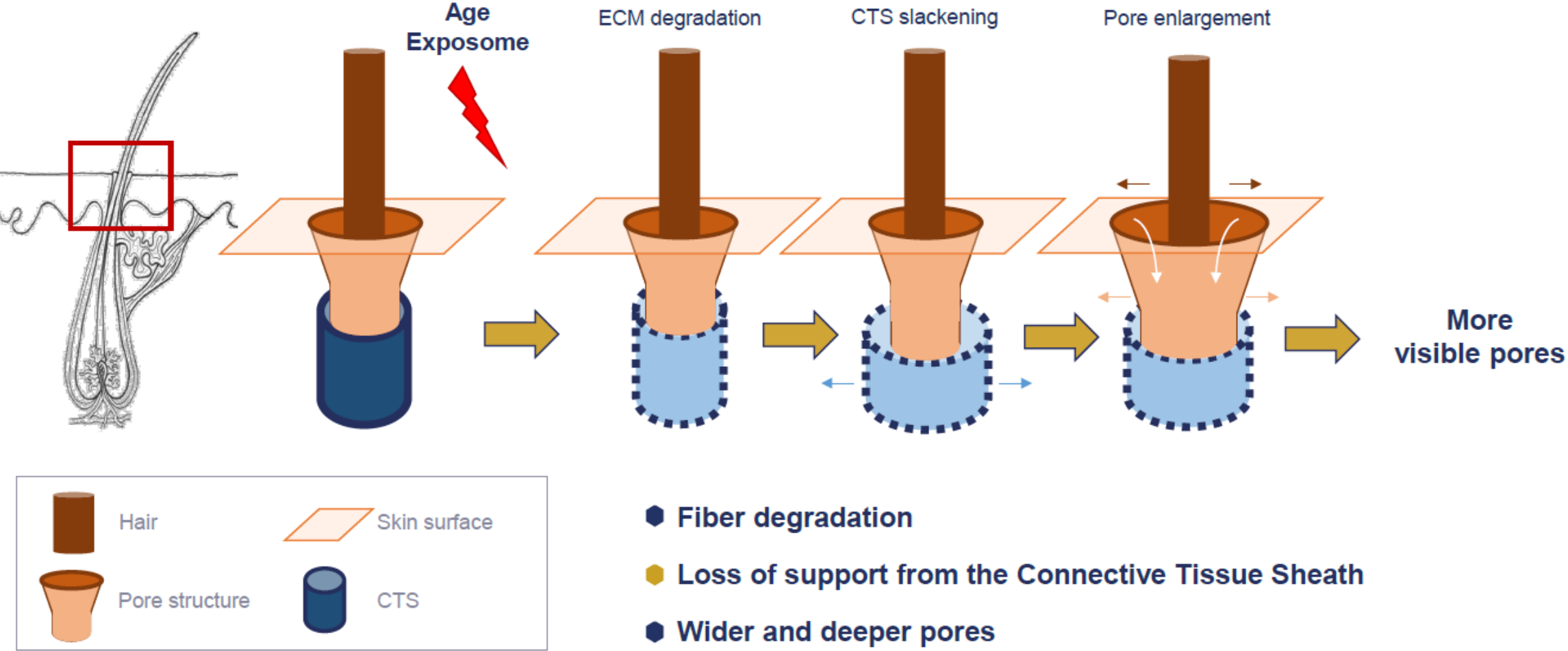
Pores and effect of aging

- 300,000 pores in our face ensure that the skin:
 - Breathes
 - Sweats
 - Releases sebum
- Effect of **aging**:
 - Elasticity of the skin decreases
 - Wrinkles and fine lines appear
 - Skin becomes rougher and can look tired
 - Pore diameter doubles between the ages of 25 and 50

→ **Pores become larger**



Effect of aging and exposome on pores



Active ingredients

BEAUACTIVE®

INCI: *Hydroxystearic Acid*



Biotechnological and naturally derived skin care ingredient that improves the appearance of skin in those older than the age of 30.

Hydroxystearic acid is found in the well-known fermented ginseng and Japanese rice bran mash.

- Visibly reduces the appearance of facial pores
- Visibly reduces the appearance of age spots
- Makes skin look younger and improves appearance after the age of 30

Reduction of segmented pore surfaces (in blue):



Subject #20 treated with 1% BEAUACTIVE®

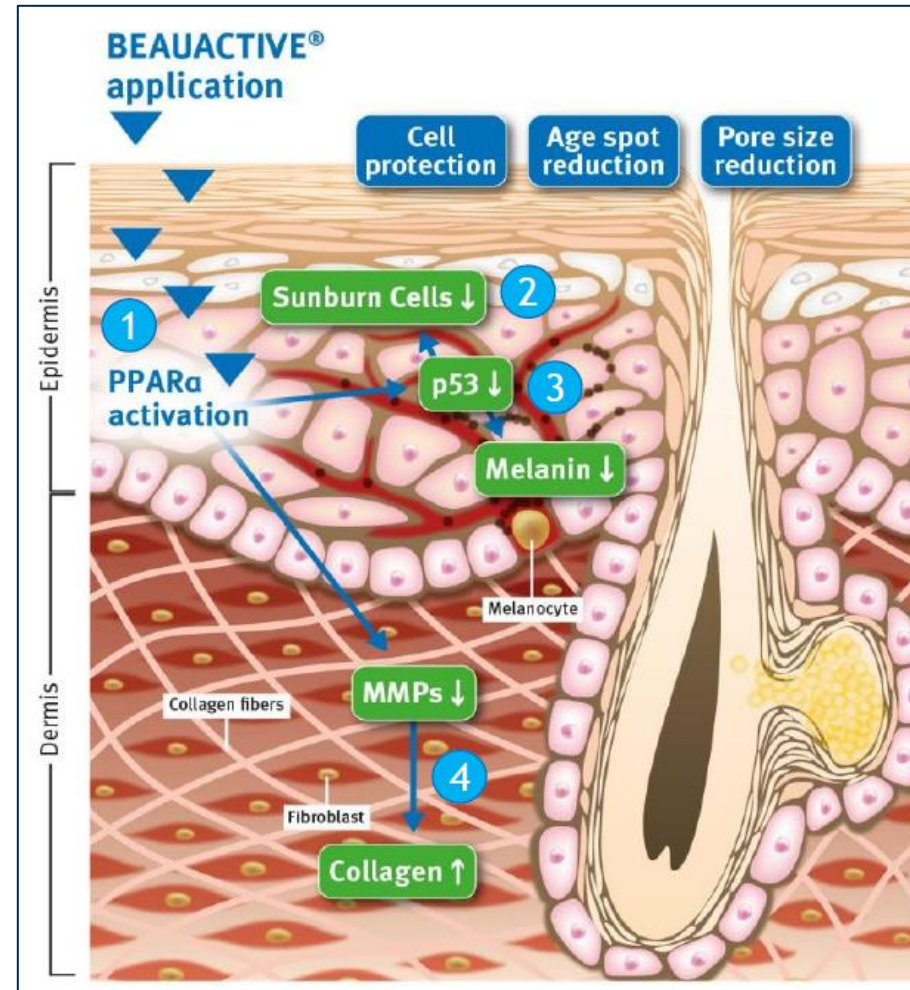


BEAUACTIVE®

Multi-target mode of action



- Boosts cell protection by reducing the production of UV-induced sunburn cells
- Decreases UV stress marker p53, leading to reduced production of melanin. It is therefore effective at correcting age spots.
- Decreases UV-induced MMP expression and increases Collagen I and III to help reduce conspicuous facial pores



BEAUACTIVE®
multi-target mode of action

1. Activates PPARα
2. Decreases UV-induced Sunburn Cells formation
→ Improved cell protection
3. Decreases UV stress marker p53 leading to reduced Melanin formation
→ Age spot reduction
4. Decreases UV-induced MMP's expression and increases Collagen I and III
→ Pore size reduction

The picture summarizes the potential effects based on *in vitro*, *ex vivo* and *in vivo* data



ADENOSILANE

INCI: Silanetriol, Adenosine

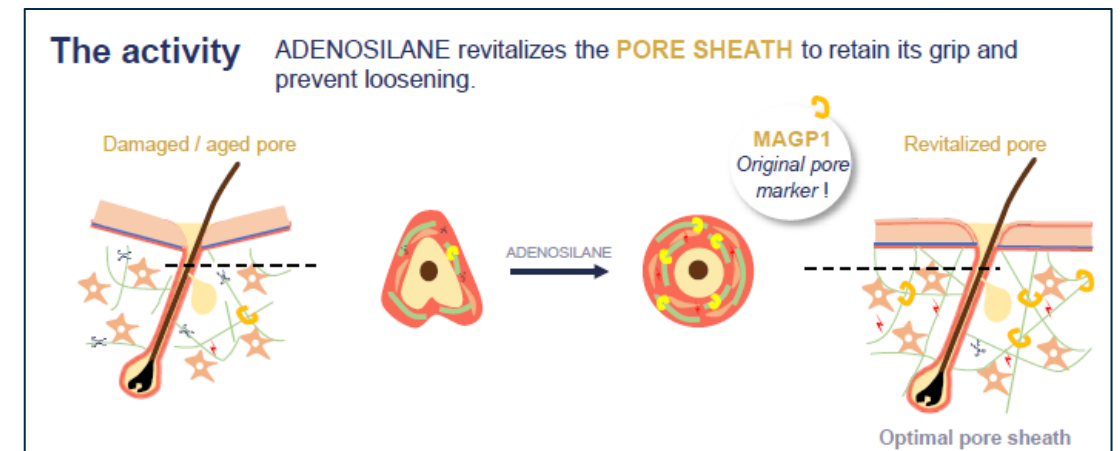
EXSYMOL
MONACO

EXSYMOL offers a real anti-aging solution that tightens pores from the inside and revitalizes pore follicles (or sheathes) so they retain their elasticity and are less likely to become enlarged.

ADENOSILANE is a silanol produced with EXSYMOL technology → BiofunXional Silicium + Adenosine.

Adenosine is an organic compound obtained using biotechnology/fermentation.








- Optimization of fibrillogenesis: sheath reconstruction (collagen, MMP1)
- Optimization of the fibernetwork around the pore: sheath's quality (MAGP1: microfibril associated glycoprotein 1)
- Rise of the available energy level: sheath property (ATP)
- Recovery of the pore elasticity: resilience (BioMeca)



ADENOSILANE

Ex vivo and in vivo studies



WHAT?	WHY?	Experimental procedure	Markers
Optimized fibrillogenesis	To assess Adenosilane ability to prevent collagen degradation	 Adenosilane → 48h → Measure of MMP1 secreted	MMP-1
	To assess Adenosilane ability to stimulate collagen production around the pore	 Adenosilane → 7 days → Measure of collagen production	Pro-collagen I
Optimized fiber network	To assess Adenosilane ability to improve interfiber organization	 Adenosilane → 7 days → Measure of MAGP-1 expression	MAGP-1
Higher energy level	To assess Adenosilane ability to increase the level of available energy	 Adenosilane → 3h → Measure of energy produced	ATP production
Recovery of CTS elasticity	To assess Adenosilane ability to stimulate elastin expression around the pore	 Adenosilane → 7 days → Measure of elastin production	Elastin
	To assess Adenosilane ability to decrease the rigidity of the CTS	 Adenosilane → 48h → Measure of the CTS rigidity	Young's modulus
Clinical study	To assess Adenosilane ability to reduce pore perception	 Adenosilane → 28 days → Measure of pore perception	Pore perception Skin relief



ADENOSILANE

In vivo results



Adenosilane

28 days

Measure of pore perception and skin relief



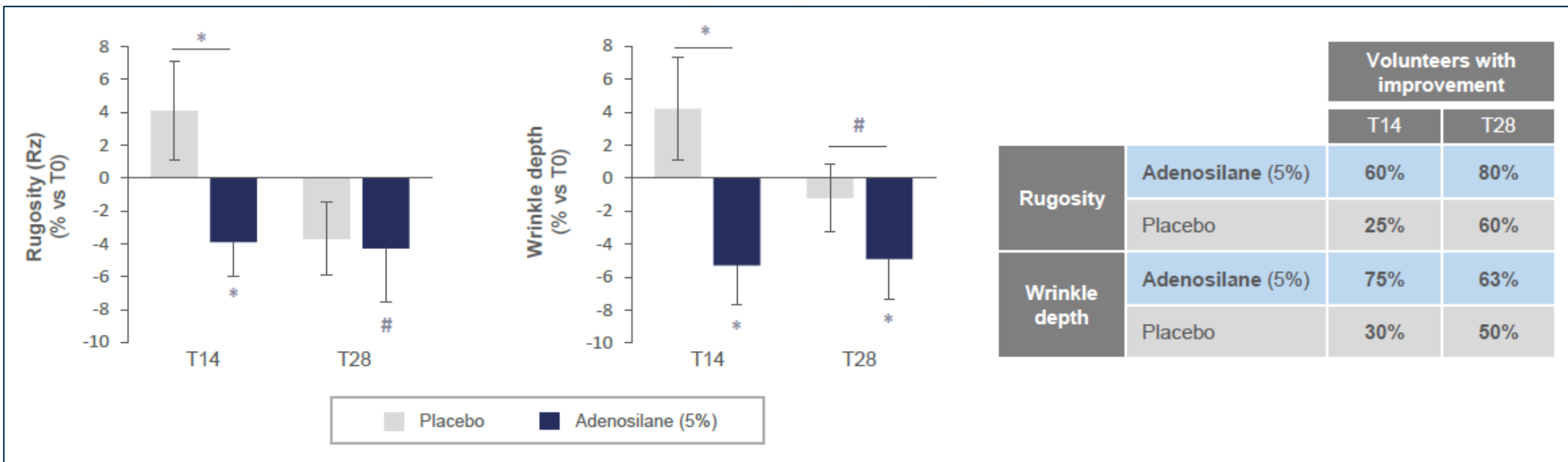
+8%
Smoothness vs placebo
(D14) (AEVA - 5%)

-9%
Wrinkle depth for
75% of volunteers
(D14) (AEVA - 5%)

+7,73%
Firmness
(D28) (Cutometer - 5%)



75% of vol. with less visible pores
70% of vol. with refined texture
82% of vol. with less greasy skin



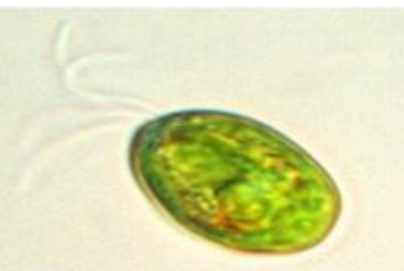
SEBOCEA®

INCI: Aqua, Fucus Spiralis Extract, Tetraselmis Chui Extract



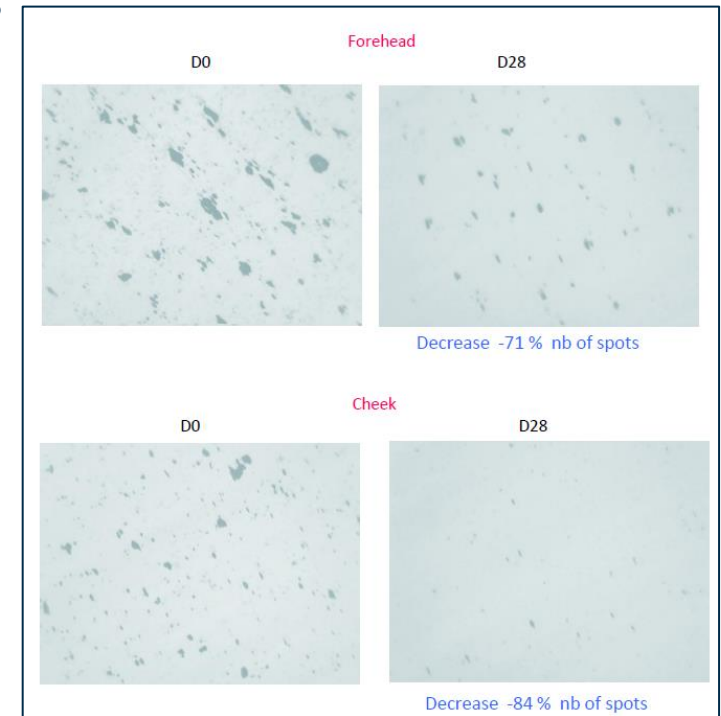
Effective marine sebum regulator based on Tetraselmis chui green microalga (controlled metabolic cultivation to promote zinc bioaccumulation) and Fucus spiralis brown macroalga.

- Diameter of pores is often proportional to the size of sebaceous glands
- Increased pore size and number are linked with hyperactive glands
- By removing excess oil, pores can appear visibly diminished



In vivo study

- 20 volunteers (7 male and 13 female)
- Twice daily applications of 3% active in a gel as unique active
- On the forehead and cheeks
- Sebum collection using Sebutape applied to the skin for 6 seconds on day 0 and 28
- Spots observed by image analysis
- Statistical validation: Student t' test



Additives

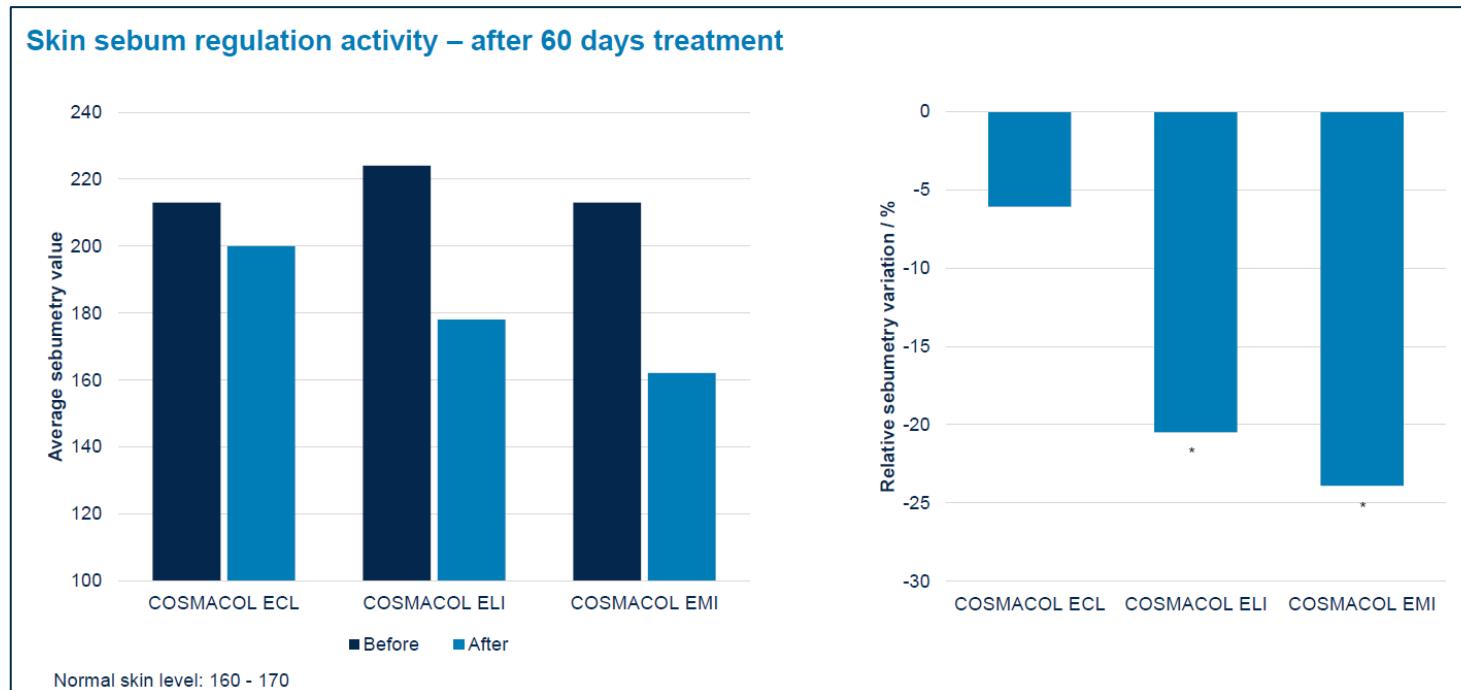
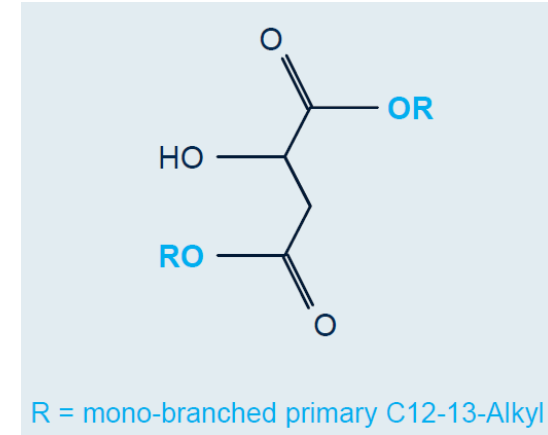
COSMACOL EMI

INCI: Di-C12-13 Alkyl Malate



Non-greasy lipid, very similar to the skin's hydrolipidic layer:

- Multifunctional emollient that can easily be used in emulsions or anhydrous formulations, providing good spreadability
- Product demonstrates outstanding moisturizing properties, providing benefits to aging skin as well as greasy skin as a sebum regulator



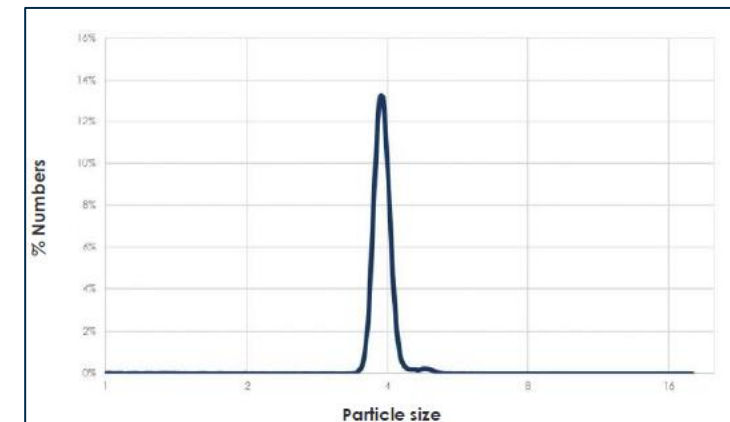
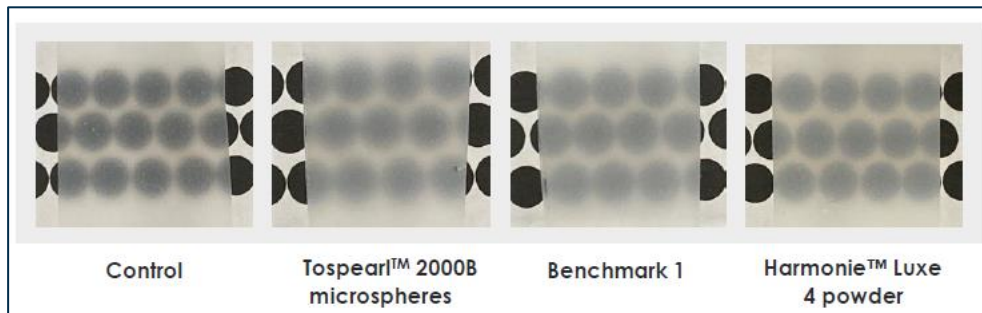
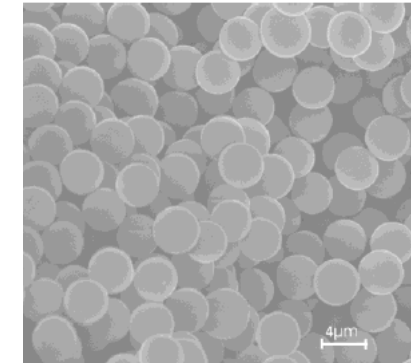
HARMONIE™ LUXE 4 POWDER

INCI: Silica



A versatile silicon dioxide that offers an alternative to synthetic ingredients like polymethylsilsesquioxane

- Non-sticky, silky smooth moisturized feel
- Impressive soft focus effects to the skin
- Natural Origin Index: 1 (derived mineral)



Formulations

Rosy Pore Refining Serum

Pink drops to minimize pores



Phase	INCI	Trade Name	Supplier	w/w %
A	Aqua	Water		Ad. 100
A	Microcrystalline Cellulose, Sphingomonas Ferment Extract, Cellulose Gum	PemuPur™ START polymer	Nordmann (Lubrizol)	0.80
A	Propanediol	TILAMAR® PDO with NØØVISTA™	Nordmann (DSM)	3.00
B	Polyglyceryl-3 Laurate	Hydramol™ TGL ester	Nordmann (Lubrizol)	1.00
B	Di-C12-13 Alkyl Malate	COSMACOL EMI	Nordmann (Sasol)	15.00
B	Dodecane	PARAFOL 12 RSBO-MB	Nordmann (Sasol)	5.00
C	Silanetriol, Adenosine	ADENOSILANE	Nordmann (Exsymol)	5.00
C	Cyanocobalamin	Vitamin B12 cryst	Nordmann (DSM)	0.01
C	Silica	HARMONIE™ LUXE 4 POWDER	Nordmann (Momentive)	2.00
C	Pentylene Glycol, Glyceryl Caprylate/ Caprate	E-Leen Green C	Nordmann (Minasolve)	3.00
C	Parfum	ROSYLICIOUS NATFLOR MKT680	Nordmann (TechnicoFlor)	1.00

PemuPur™ START polymer

- A unique, natural-derived polymeric emulsifier that provides excellent stabilization capabilities at low dosages while offering a fresh-feeling and “quick-break” sensory profile

VITAMIN B12 cryst

- Pink-colored vitamin that helps prevent photodamage and make skin appear more vibrant

ADENOSILANE

- Revitalizes pore follicles to retain their elasticity and prevent them from becoming enlarged

HARMONIE™ LUXE 4 POWDER

- Helps deliver a non-sticky, silky-smooth and moisturized feel while providing impressive soft focus effects



Conclusion

Minimizing Pores: the New Anti-aging Trend?

The trend of using photo filters is decreasing, and the desire for naturalness is growing!

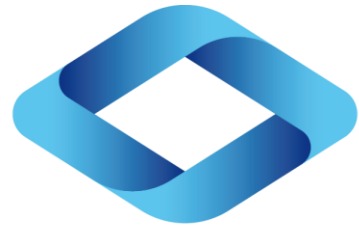
Utilizing active ingredients and soft focus additives can help you feel good in and about your skin, with no photo filters – so you can follow the **#nofilter** trend.





Thank you

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