
Special
Chemicals
SCH Special
Anti wrinkle white

Special Chemicals

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Introduction

01
Introduction

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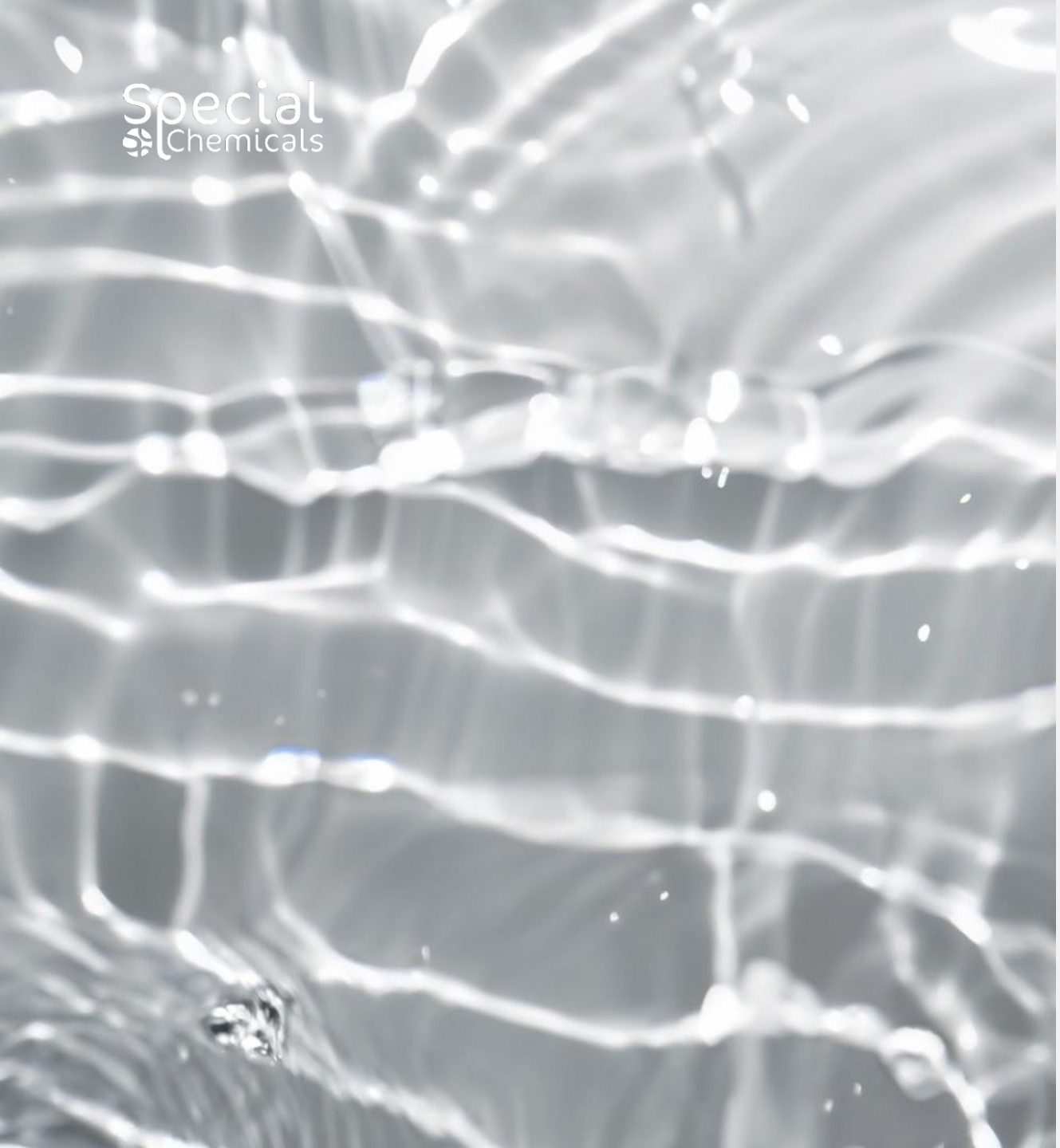


01.1
Potasium Azeloyl Diglycinate

Clarifying / Moisturizing / Anti-inflammatory

Potassium azeloyl diglycinate (PAD) is a condensed variant of azelaic acid mixed with the amino acid glycine, which is safer and more effective than the free acid.

Its clarifying properties derive from its inhibitory effect on the tyrosinase in the melanogenic route of L-Dopachrome from Dopaquinone.
The amino acid glycine, an essential component of the natural moisturizing factor, softens the skin and keeps it moist, providing hydration and brightness through a smoothing effect. It also boosts the permeation and availability of the azelaic acid to the dermal-epidermal matrix.

PAD has anti-inflammatory properties (IL-1 inhibition) and seboregulatory properties, which help reinforce the clarifying and brightening effect (without shine) of the mixture.

01.2
Nonapeptido-1

Clarifying

Nonapeptide-1 (NP-1) is a biomimetic peptide with affinity for the cellular receptors of the melanoprotein MCI-R. It limits the expression of the tyrosinase isomorphic agents involved in eumelanin synthesis.

01.3
Glabridin

Clarifying/ Anti-inflammatory / Anti-free-radicals

Glabridin is an isoflavonoid extracted from licorice root that, due to its particular annular hydroxylic conformation (C6, C7 and C8), promotes non-competitive inhibition of TRP-1 and TRP- 2 tyrosinase activity (irreversible inactivation). It also regulates the signal of melanotropin (α-MSH), the hormone responsible for activating the melanogenic process.

Glabridin has a notable anti-inflammatory profile due to suppressing superoxide anion and inhibiting the signaling pathway of NF-κB and the expression of cyclooxygenase-2, preventing the oxidative damage caused by UVB radiation.

01.4
Cosmoperine

Penetration enhancer

Tetrahydropiperine (THP) is a derivative of piperine, a natural alkaloid extracted from black pepper.
THP is a lipophilic transdermal penetration enhancer that increases the bioavailability and diffusion of active ingredients. It boosts intercellular vehiculization through the stratum corneum, reducing the electrochemical resistance of intercorneocytic lipid bilayers. It also improves the cosmeto-kinetics of active ingredients in their intradermal diffusion process, by hindering their enzymatic degradation, activated by the cutaneous receptors of xenobiotics.

02
Depigmenting efficacy test under dermatological control

02.1
Results

Dermatological tolerance evaluation

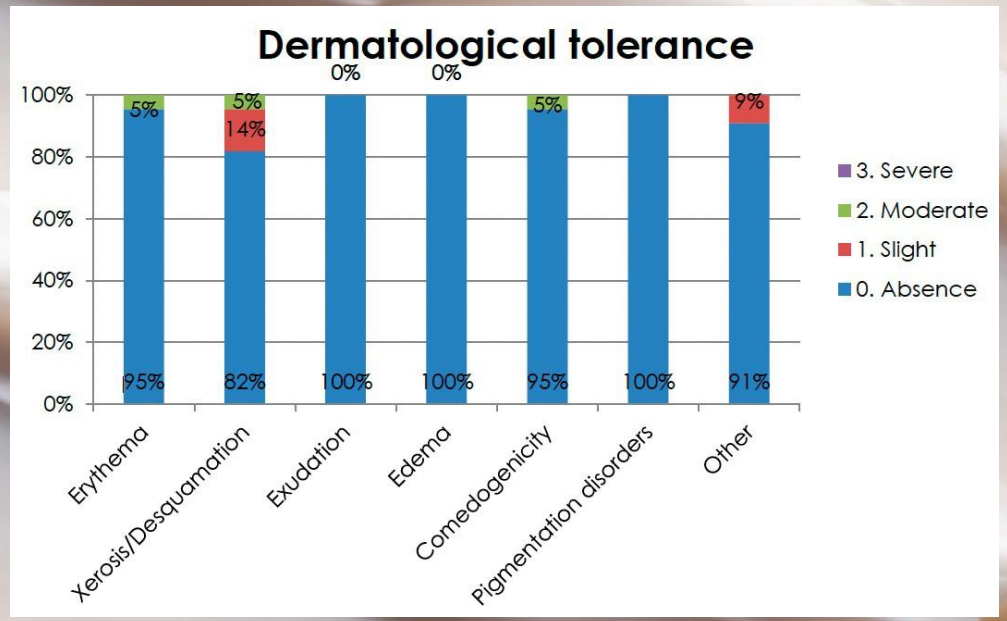


Figure 1. Alterations evaluated by the dermatologist (n=22)

02.2
Dermatological efficacy evaluation

1. Spot scale

- After **28 days, there is a statistically non-significant average decrease (2%)** when compared to T0, so the spots improve.
- After **56 days**, there is no difference when compared to T0.

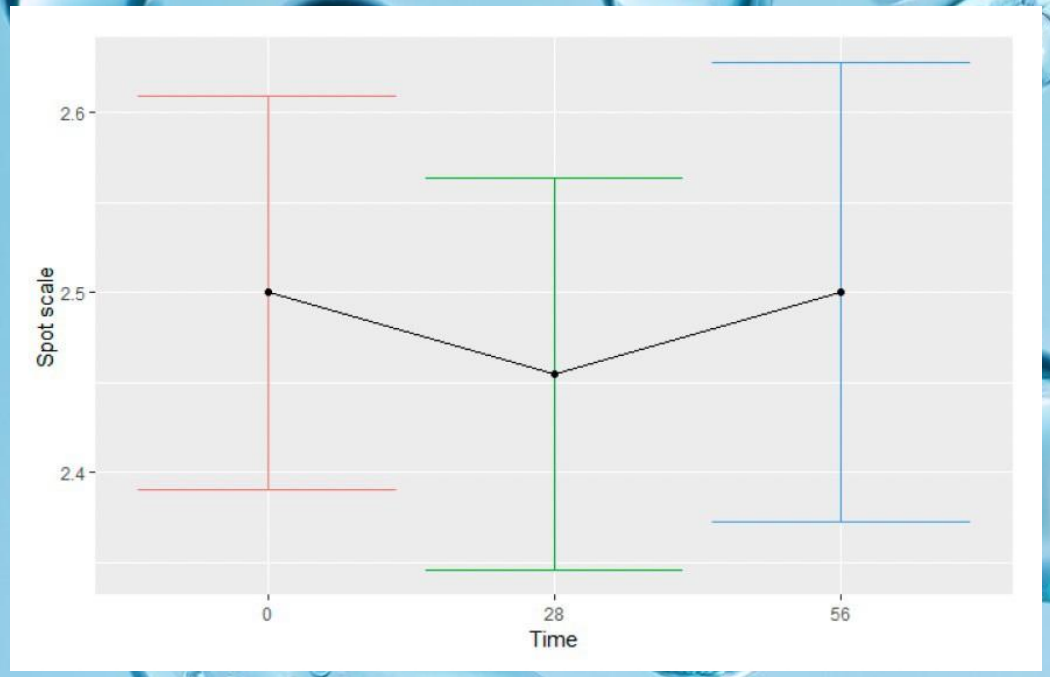


Figure 2. Average result of the parameter ± standard error at each experimental time. The trend of the data over time is visualized.

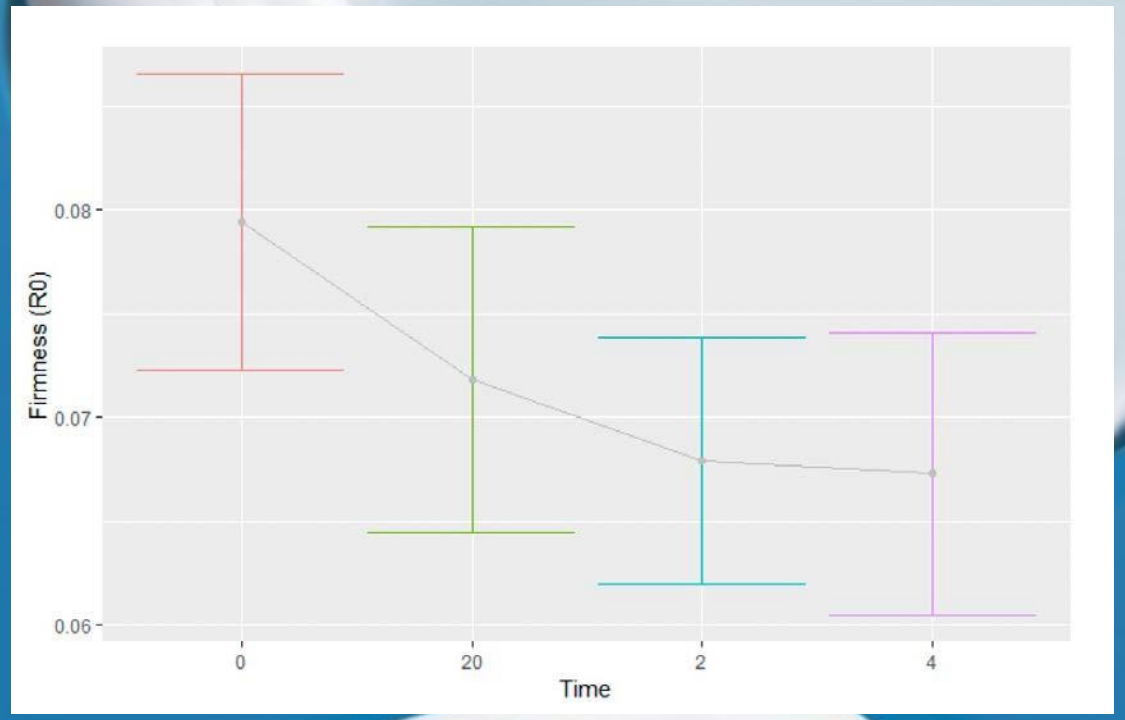


Figure 3. Average result of the parameter ± standard error at each experimental time. The trend of the data over time is visualized.

02.2 Dermatological efficacy evaluation

02.2.2. Evaluation of firming efficacy

- After **20 minutes, there is a statistically non-significant average decrease (8.9%)** when compared to T0, so the firmness improves.
- After **2 hours, there is a statistically non-significant average decrease (13.9%)** when compared to T0, so the firmness improves.
- After **4 hours, there is a statistically non-significant average decrease (15.2%)** when compared to T0, so the firmness improves.

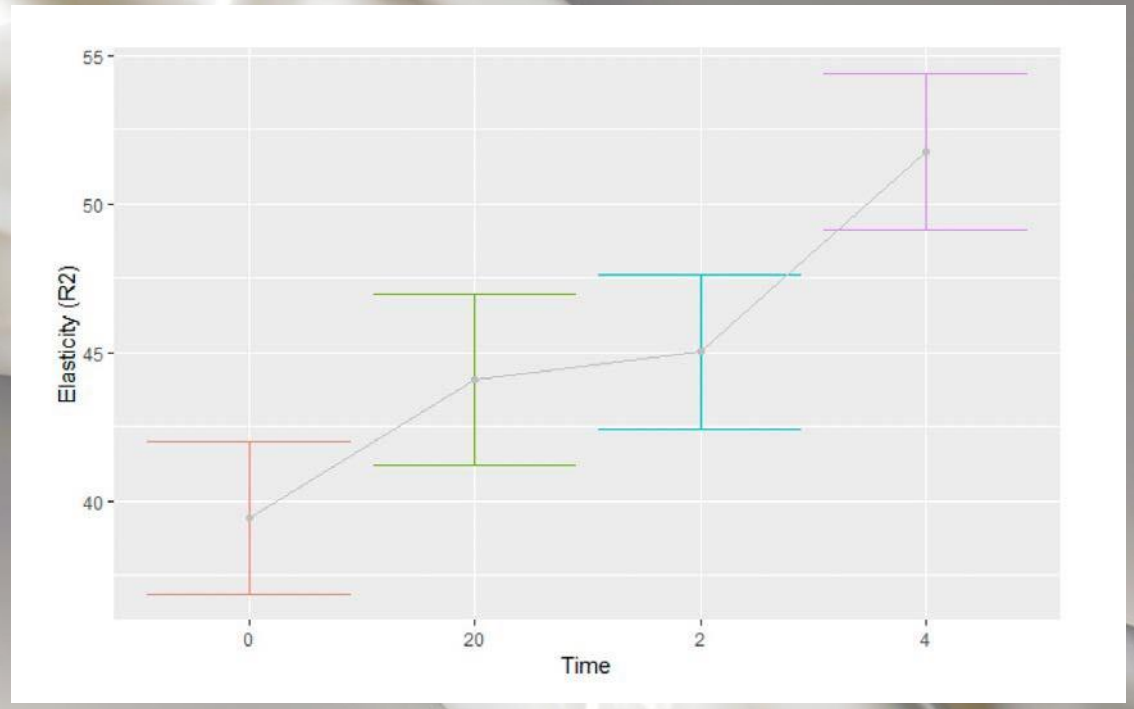


Figure 4. Average result of the parameter at different experimental times.

02.2 Dermatological efficacy evaluation

02.2.3. Evaluation of the effectiveness in elasticity

- After **20 minutes, there is a statistically non-significant average increase (11.8%)** when compared to T0, so the elasticity improves.
- After **2 hours, there is a statistically non-significant average increase (14.2%)** when compared to T0, so the elasticity improves.
- After **4 hours, there is a statistically significant average increase (31.2%)** when compared to T0, so the elasticity improves.

02.2
Dermatological efficacy evaluation

02.2.4. Evaluation of anti-fatigue efficacy

- After **20 minutes, there is a statistically non-significant average decrease (0.3%)** when compared to T0, so the fatigue improves.
- After **2 hours, there is a statistically non-significant average decrease (8.1%)** when compared to T0, so the fatigue improves.
- After **4 hours, there is a statistically significant average decrease (17%)** when compared to T0, so the fatigue improves.

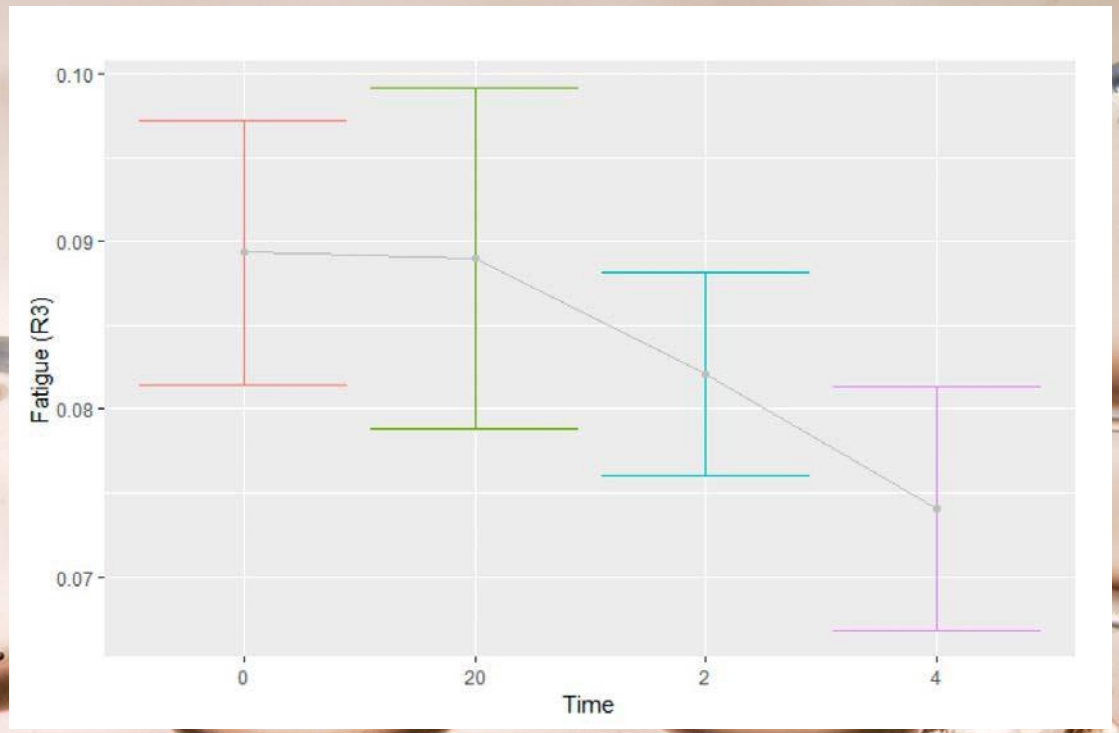


Figure 5. Average result of the parameter at different experimental times

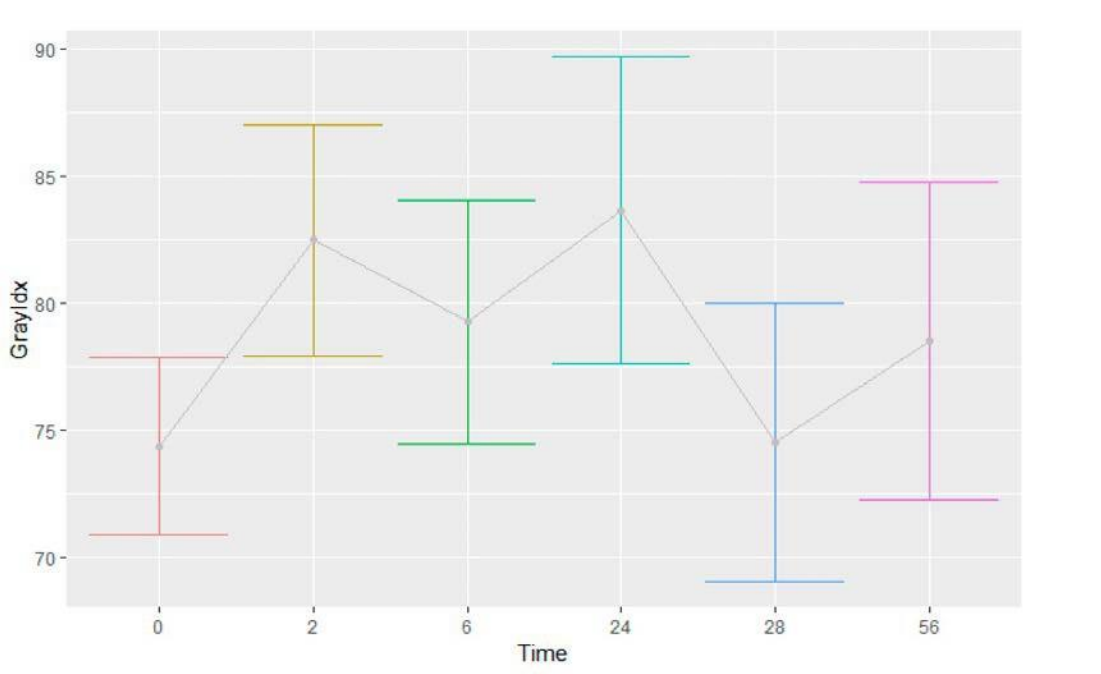


Figure 6. Average result of the parameter at different experimental times.

02.2 Dermatological efficacy evaluation

02.2.5. Evaluation of moisturizing efficacy

- After **2 hours, there is a statistically non-significant average increase (10.9%)** when compared to T0, so the hydration improves.
- After **6 hours, there is a statistically non-significant average increase (6.6%)** when compared to T0, so the hydration improves.
- After **24 hours, there is a statistically non-significant average increase (12.4%)** when compared to T0, so the hydration improves.
- After **28 days, there is a statistically non-significant average increase (0.2%)** when compared to T0, so the hydration improves.
- After **56 days, there is a statistically non-significant average increase (5.6%)** when compared to T0, so the hydration improves.

02.2
Dermatological efficacy evaluation

02.2.6 Evaluation of anti-spots efficacy

- After **28 days, there is a statistically non-significant average decrease (5.2%)** when compared to T0, so the melanin improves.
- After **56 days, there is a statistically non-significant average decrease (6.9%)** when compared to T0, so the melanin improves.

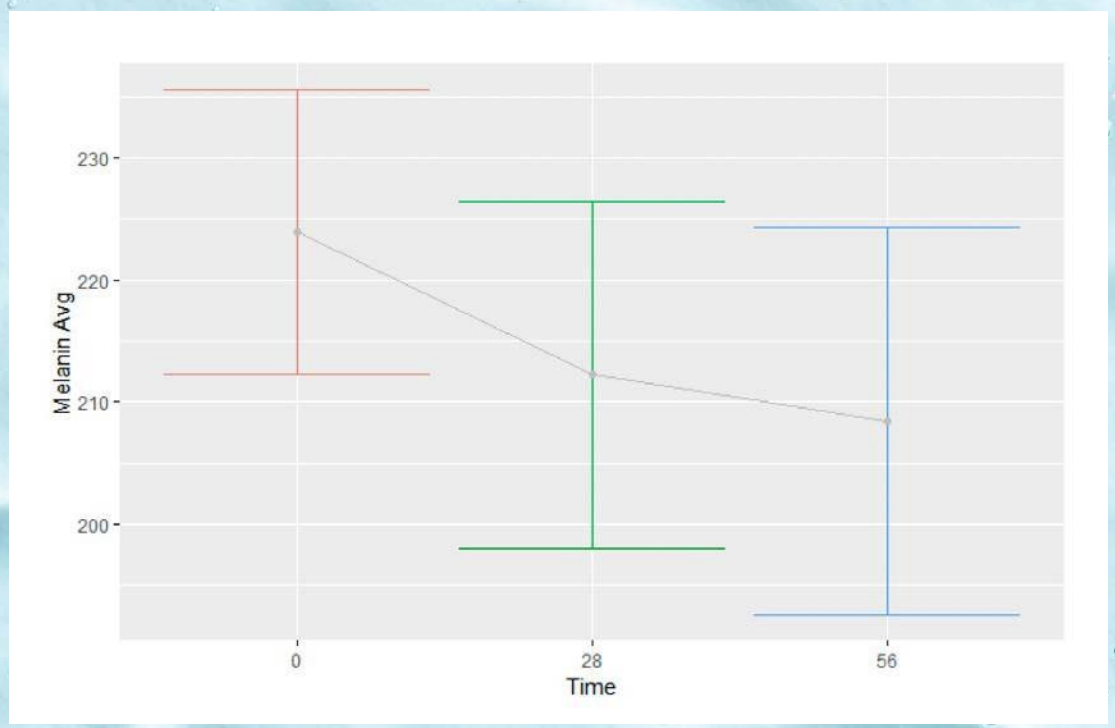


Figure 7. Average result of the parameter at different experimental times.

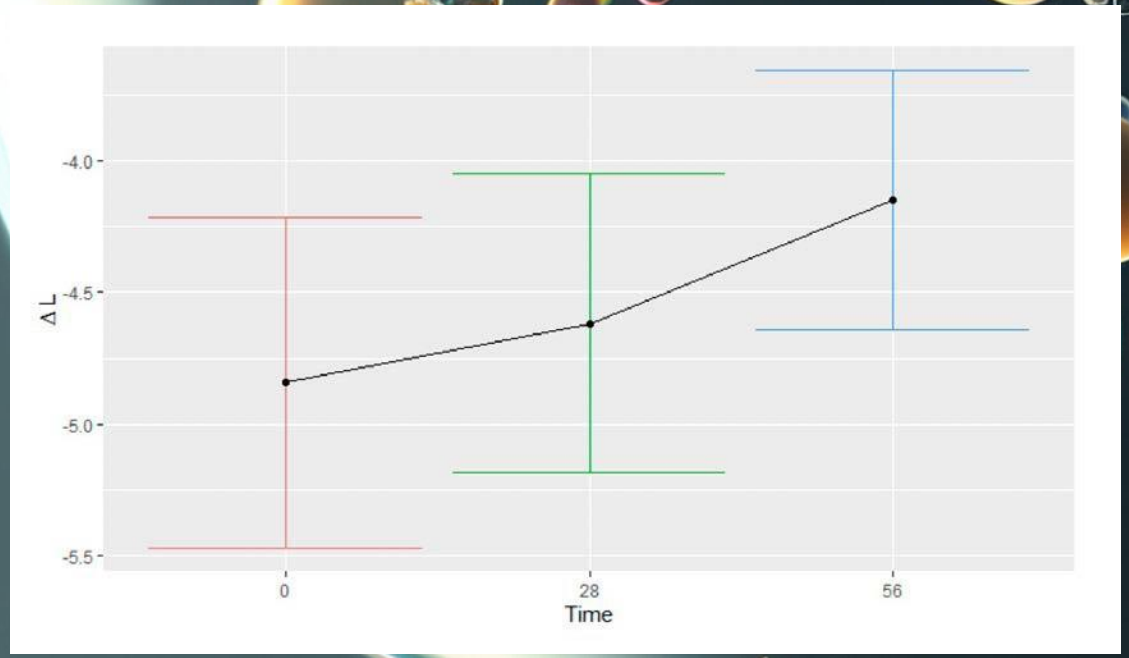


Figure 8. Average result of the parameter ± standard error at each experimental time. The data trend is displayed over time.

02.2 Dermatological efficacy evaluation

02.2.7. Luminosity evaluation

- After **28 days, there is a statistically non-significant average increase (5%)** compared to T0, so luminosity improves.
- After **56 days, there is a statistically non-significant average increase (14%)** compared to T0, so luminosity improves.

02.2
Dermatological efficacy evaluation

02.2.8 Evaluation of the uniformity of the tone

- After **28 days, there is a statistically non-significant average decrease (8.8%)** compared to T0, so the tone is equalized.
- After **56 days, there is a statistically non-significant average decrease (17%)** compared to T0, so the tone is equalized.

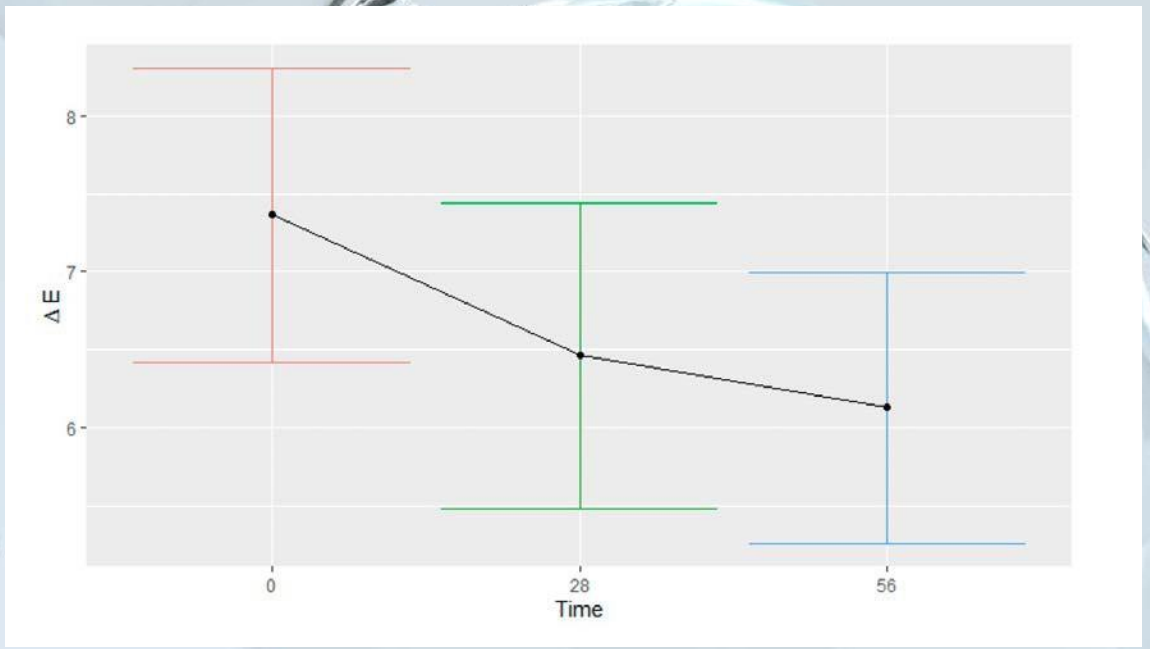


Figure 9. Mean parameter result ± standard error at each experimental time. The trend of the data over time is displayed.

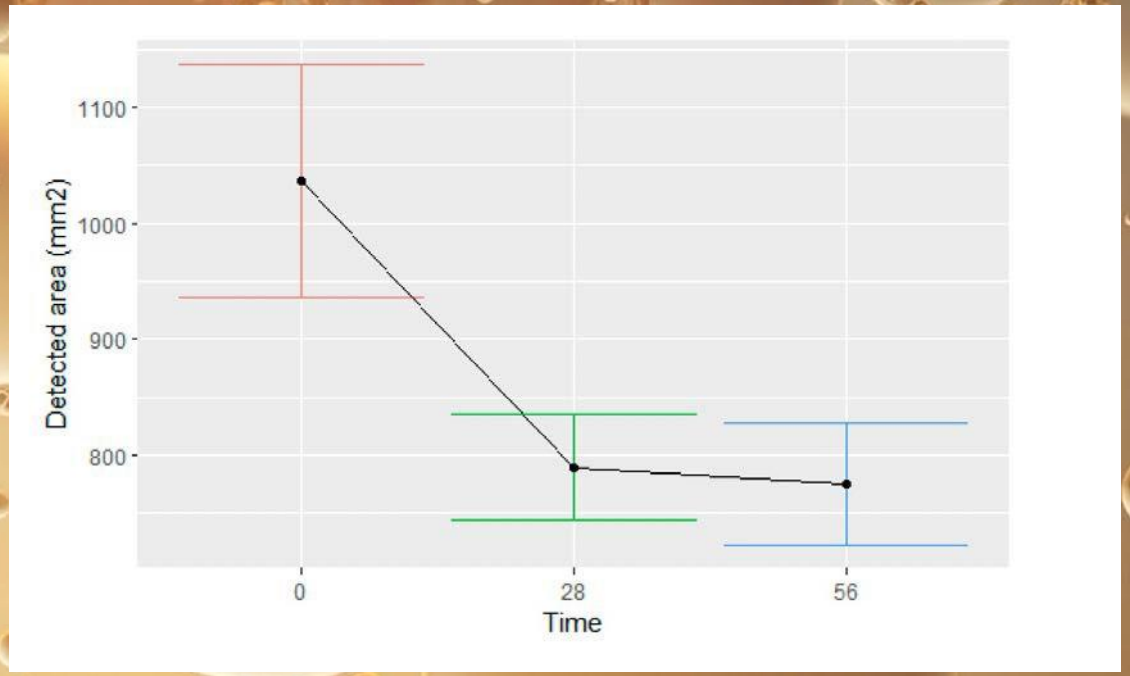


Figure 10. Average result of the parameter at different experimental times.

02.2 Dermatological efficacy evaluation

02.2.9 Evaluation of anti-wrinkle efficacy. Full face

- After **28 days, there is a statistically non-significant average decrease (23.8%)** compared to T0, so wrinkles are improved.
- After **56 days, there is a statistically significant average decrease (25.2%)** compared to T0, so wrinkles improve.

02.2
Dermatological efficacy evaluation

02.2.10 Evaluation of anti-wrinkle efficacy. Forehead

- After **28 days, there is a statistically non-significant average decrease (37.2%)** compared to T0, so forehead wrinkles improve.
- After **56 days, there is a statistically significant average decrease (40.4%)** compared to T0, so forehead wrinkles improve.

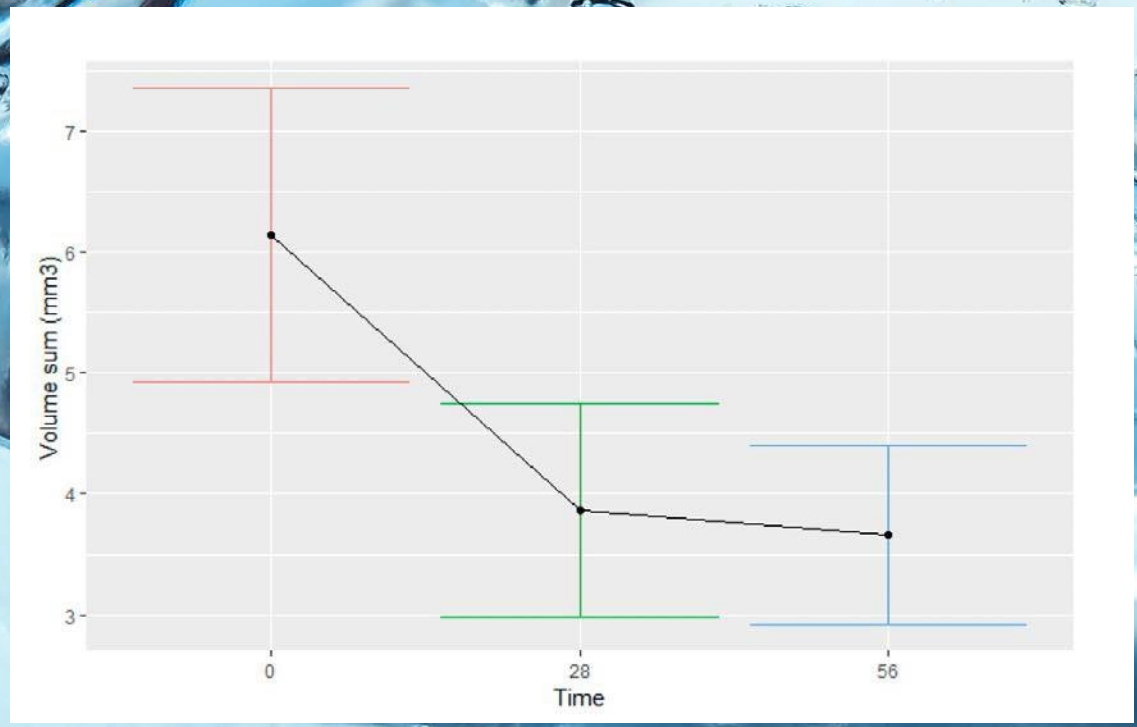


Figure 11. Average result of the parameter at different experimental times.

02.3
Spots photos

T0

T28

T56

02.4
Depigmentation effect

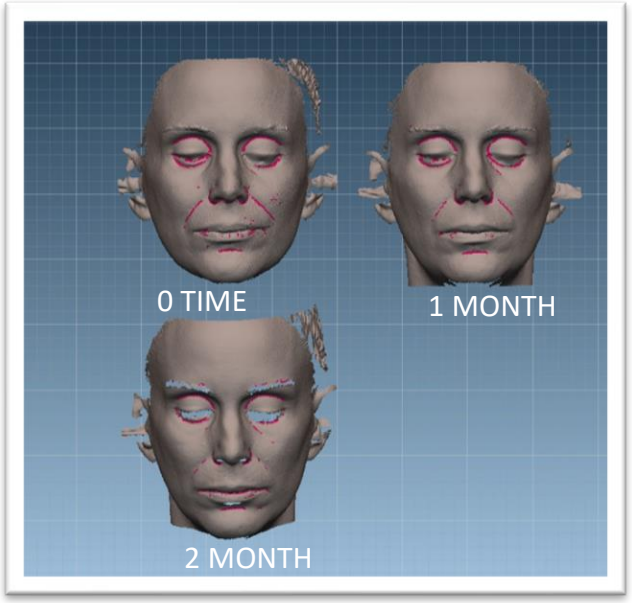
T0

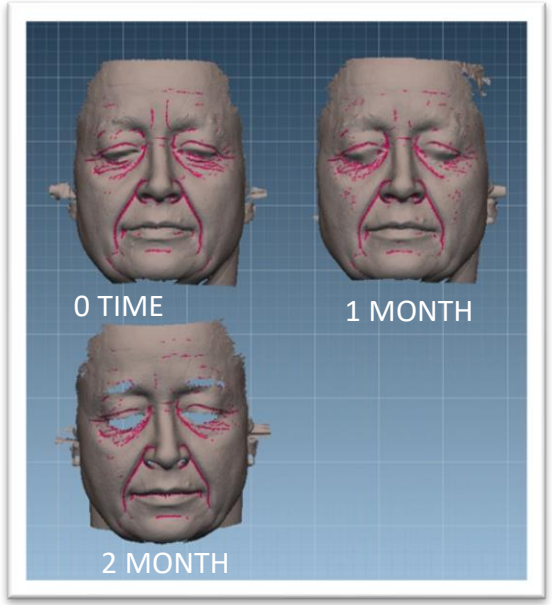
T28

T56

Special Chemicals

Anti Wrinkle Study





03
Conclusion

03

Conclusion

The objective of the study was to determine the depigmenting efficacy of the cosmetic product **DEPIGMENTING CREAM,** with reference: **001,** by means of biometric measurements in 22 volunteers with pigmented skin, after 56 days of using the product.

03

Conclusion

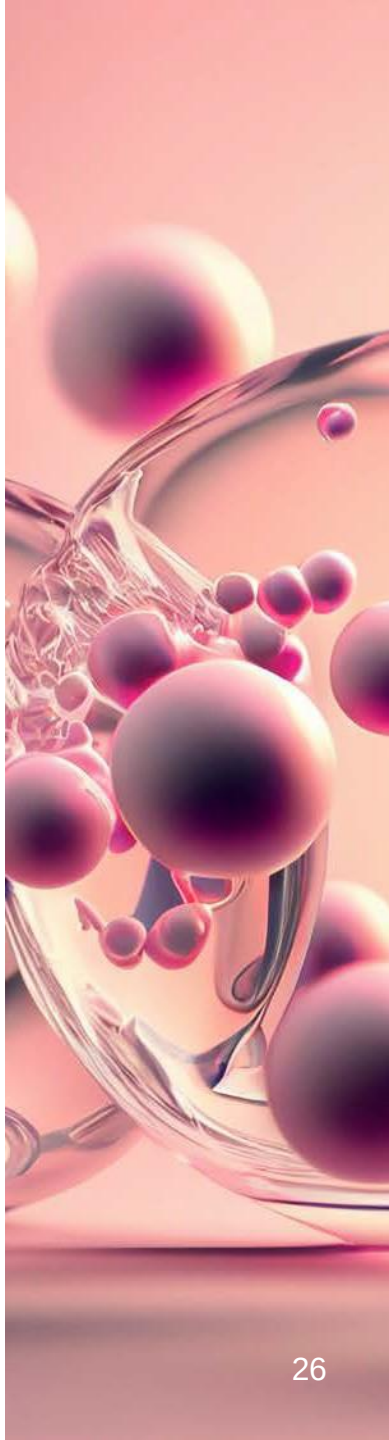
Under the experimental conditions adopted and considering the defined experimental parameters, we can conclude:

Regarding the tolerance evaluation carried out by the dermatologist:

- dryness was found in three volunteers, and comedogenicity in one of the volunteers.

Regarding dermatological efficacy:

- After 28 days of continuous use of the product, there is a 2% decrease in the coloration of the spots.



03
Conclusion

Under the experimental conditions adopted and considering the defined experimental parameters, we can conclude:

Regarding instrumental efficacy:

Firmness

- After 20 minutes of applying the product, there is an increase in firmness of 9%.
- After 2 hours of applying the product, there is an increase in firmness of 14%.
- After 4 hours of applying the product, there is an increase in firmness of 15%.

Elasticity

After 20 minutes of applying the product, there is an increase in elasticity of 12%.

After 2 hours of applying the product, there is an increase in elasticity of 14%.

After 4 hours of applying the product, there is a significant increase in elasticity of 31%.

03

Conclusion

Under the experimental conditions adopted and considering the defined experimental parameters, we can conclude:

Hydration.

- After 20 minutes of applying the product, there is an 11% increase in hydration.
- After 6 hours of applying the product, there is an increase in hydration of 7%.
- After 24 hours of applying the product, there is an increase in hydration of 12%.
- After 28 days of continuous use of the product, there is an increase in hydration of 0.2%.
- After 56 days of continuous use of the product, there is an increase in hydration of 6%.

Coloration of the spots

- After 28 days of continuous use of the product, there is a 5% decrease in coloration.
- After 56 days of continuous use of the product, there is a 7% decrease in coloration.

Luminosity

- After 28 days of continuous use of the product, there is an increase in the luminosity of the 5%.
- After 56 days of continuous use of the product, there is an increase in the luminosity of the 14%.

03
Conclusion

Under the experimental conditions adopted and considering the defined experimental parameters, we can conclude:

Tone uniformity

- After 28 days of continuous use of the product, there is an improvement in tone uniformity of 12%.
- After 56 days of continuous use of the product, there is an improvement in tone uniformity of 17%.

Wrinkles

- After 28 days of continuous use of the product, there is a global decrease in wrinkles of 24%.
- After 56 days of continuous use of the product, there is a significant decrease in wrinkles at a global level of 25%.
-
- After 28 days of continuous use of the product, there is a decrease in wrinkles in front of 37%.
- After 56 days of continuous use of the product, there is a significant decrease in wrinkles in front of 40%.

The product can claim **“Tested under dermatological control”.**

Special Chemicals

04
Formulation

04
Formulation

White cream

Production method

Mix the Phase A ingredients and heat to 60-65 degrees.

Mix the Phase B ingredients and heat to 60-65 degrees.

Add B to A and homogenize with a Turrax until an emulsion is formed.

Cool and add Phase C while shaking.

Ingredient	Inci	%	Phase
AGUA	Aqua	70.8	A
ZEMEA	Propanediol	3	A
EMULIUM DELTA	Cetyl alcohol, Glyceryl stearate, Peg-75 sterate, Ceteth-20, Stereth-20	6	**A**
MANTECA CUPUAÇU	Theobroma grandiflorum seed butter	2	B
NAFOL 16-18 S	Ceteryl alcohol	1	B
CETIOL OE	Dicaprylyl ether	3	B
MYRITOL 318	Caprylic/capric trygliceride	2	B
NEOSSANCE	Squalane	5	B
SAEMOL 99	Isononyl Isononanoate	2	B
DERMOSOFT OM	Mehylpropanediol, Caprylyl glycol	2	C
SCH SPECIAL WHITE	Aqua, Propanediol, Potassium azeloyl Diglycinate, Glabridin, Tetrahydropiperine, Polyglyceryl-6 caprylate, Polyglyceryl-4 caprate, Nonapeptide-1	3	C
PERFUME	Parfum	0.2	C

Special Chemicals

Special Anti wrinkle white