Power of the shadow ingredients





We apply an impressive arsenal of time-fighting products on our skin: a day cream, a night cream, a sunscreen, a serum, a mask, a tonic, a scrub, a peeling, and... We need them desperately to maintain our reflection in the mirror unchanged. When choosing a product our focus mainly goes to the presence of positive ingredients, also called "the actives". Actives such as the iconic peptides, the holy niacinamide and the blessed hyaluronic acid.

The choice for a cosmetic product is also influenced by negative ingredients: blacklisted ingredients. Ingredients such as the criminal parabens, the scandalous silicones, and the notorious mineral oil. They need to be avoided at all cost. All these ingredients, positive and negative, enjoy a tremendous amount of attention on social media and internet. And then, there are shadow ingredients. Ingredients that seldom get any attention, but that are secretly crucial for the success of a cream. Indeed, you cannot just make a cream with peptides and vitamins alone. They need to be incorporated in a base, a vehicle. It turns out that this quite boring base, this base that never receives any attention, determines whether an active is performing or not.

There are 3 kinds of bases commonly used:

Base	Description	Examples
Gel	Actives are solubilized/dissolved in water, without oil.	Tonic, serum, facial gel.
O/W emulsion	Oil is mixed into the water. The water contains the dissolved actives.	Day cream, mask.
W/O emulsion	Water is mixed into the oil. The water contains the dissolved actives.	Night cream, mask, High SPF cream.

An active is interesting for the skin only if it can penetrate and reach the appropriate skin site. Penetrating the skin is easier said than done; the skin is a solid barrier. Therefore, actives cannot penetrate fast. They need time to become available to the skin. This is precisely where the base comes into the picture, as the base has a serious influence on the skin-availability of active ingredients.





Performance of actives through a gel vehicle

When applying a gel on the skin, the water with actives touches the skin. The warm skin evaporates the water in just a few minutes. Most of the precious actives crystalizes on the skin surface and can never penetrate. Only 6.9% from allantoin penetrates from a gel into the skin (1). A gel is like a quick kiss on the skin.

Performance of actives through an O/W emulsion

When applying an O/W-emulsion on the skin, the water with actives still touches the skin and evaporates, but the oil hinders the evaporation. The actives are longer available to the skin and therefor they can penetrate better. 15.4% allantoin penetrates from a standard O/W emulsion (1).

Performance of actives through a W/O-emulsion

When applying a W/O emulsion, water is not the first to touch the skin, but oil. In this oil the water with actives are imprisoned and cannot escape. The water with actives stay longer on the skin. Actives have now a much greater chance of penetration. 20% from the allantoin penetrates through a W/O emulsion into the skin (1). A W/O emulsion is like an intense, passionate kiss on the skin.

The best choice from performance point of view is to go for W/O-vehicles. Unfortunately, this passionate kiss might feel greasy unless performed by an excellent kisser, such as NEOCARE P3R.

Emulsions prepared with NEOCARE P3R:

- Feels elegant, light, and silky soft.
- Stays quite long on the skin. Improving the performance of all the actives.
- NEOCARE P3R emulsions provide 24h hydration without any additional effort.
- The hydration from NEOCARE P3R easily outperforms most of the hydration actives.

A nice and original Valentine gift this year might be a jar of NEOCARE P3R...



Inspiration to elegant kissing formulas with NEOCARE P3R:

Foot Cream with Urea

Phase	Ingredient	INCI	Activity	%
Α	Water	Aqua	Solvent	QS
	Glycerin	Glycerin	Humectant	3
	MgSO4 x 7H2O	Magnesium Sulfate	Stabilizer	1
	Euxyl PE9010	Phenoxyethanol, Ethylhexylglycerin	Preservative	QS
	Urea	Urea	Active Ingredient	10-40%
С	NEOCARE P3R	Polyglyceryl-3 Polyricinoleate, Polyglyceryl-3 Ricinoleate	Emulsifier Hydration Booster	3
	Macadamia Nut Oil	Macadamia Integrifolia Seed Oil	Vegetable oil	5.3
	Cetiol 868	Ethylhexyl Stearate	Emollient	5.3
	Arlamol HD	Isohexadecane	Mineral oil	5.3

24H Body Lotion

Phase	Ingredient	INCI	Activity	%
Α	Water	Aqua	Solvent	QS
	Glycerin	Glycerin	Humectant	3
	Mg\$O4 x 7H2O	Magnesium Sulfate	Stabilizer	1
	Euxyl PE9010	Phenoxyethanol, Ethylhexylglycerin	Preservative	QS
	Urea	Urea	Active Ingredient	10-40%
С	NEOCARE P3R	Polyglyceryl-3 Polyricinoleate, Polyglyceryl-3 Ricinoleate	Emulsifier Hydration Booster	3
	Macadamia Nut Oil	Macadamia Integrifolia Seed Oil	Vegetable oil	5.3
	Cetiol 868	Ethylhexyl Stearate	Emollient	5.3
	Arlamol HD	Isohexadecane	Mineral oil	5.3



Inspiration to elegant kissing formulas with NEOCARE P3R:

Agave Sunrise Cream

Phase	Ingredient	INCI	Function	%
A	Water	Aqua	Solvent	QS
	Glycerin	Glycerin	Humectant	3
	Magnesium Sulfate Hepta Hydrate	Magnesium Sulfate	Stabilizer	0,7
	preBIULIN AGA	Inulin	Moisturizing/Prebiotic	2
	Geogard	Benzyl Alcohol, Dehydroacetic Acid, Aqua	Preservative	QS
В	SunZno SA	Zinc Oxide, Stearic Acid	Sun Screen	19,25
	NEOCARE P3R	Polyglyceryl-3 Polyricinoleate, Polyglyceryl-3 Ricinoleate	Emulsifier	3
	Miglyol 812	Caprylic/Capric Triglyceride	Emollient	5,5
	Cetiol V	Decyl Oleate	Emollient	6
	GOSULIN IL		Emollient	
С	Silica Beads SB-300	Silica	Filler	2
	Perfume	Parfum	Perfume	0.5



(1) Sznitowska and Janicki, The effect of vehicle on allantoin penetration into human skin from an ointment for improving scar elasticity. Pharmazie 43 (1988)