

ISSUE MAY 2018

COSMETOPOLITAN



COS-INSIDE

News from
RAHN

LAB-NEWS

The beauty
formula from
Japan;
Cleansing foam

**AROUND
THE WORLD**

Active Beauty

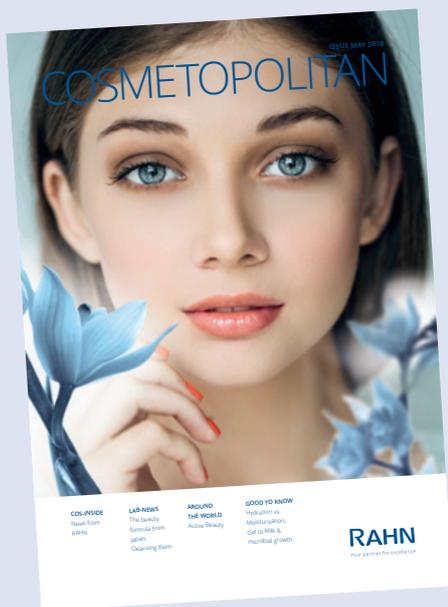
GOOD TO KNOW

Hydration vs.
Moisturisation;
Gel to Milk &
microbial growth

RAHN

Your partner for excellence

Dear Readers,



The days are getting longer. We are starting to feel the sun on our faces. The first spring flowers are sprouting up and a magical curiosity stirs in our hearts. It's spring! Spring is not just a joyful experience for our senses but also for our skin.

The beginning of spring also means a change to our skincare regime. The skin has different care needs depending on the season. Care products for cold weather conditions are normally much richer and creamier. Care products that protect the skin in winter may end up being too rich when the weather gets warmer.

Skincare should now consist of moisturising products, ideally with a light UV-protection to protect the pale winter skin from the increasingly aggressive effects of the sun's rays.

"Spring is when the soul starts to think in colour again." With this in mind, I hope you enjoy reading our new edition of Cosmetopolitan!

Warmest greetings

Sandra Gut
from your RAHN team

WHO IS NEW?

A very warm welcome to the new colleagues joining our team:



NINA JEREMIC
Function
Customer Service Cosmetics (80%)
Joined
1 January 2018



BETTINA DALBERT
Function
Commercial Assistant (60%)
Joined
1 January 2018

We hope our colleagues will settle in quickly and look forward to developing a strong and productive working relationship.



“Moisturising – A simple word with high complexity”

... we focussed on this topic during our **4th UK Technology Seminar**. The seminar was filled to the brim with exciting presentations such as:

- “Moisturising – How can your product stand out in a competitive and saturated market?”
- Amino Moisture Control
- Capture – Fixing – Boosting... Different strategies of skin hydration at a glance
- Holistic approach of water homeostasis and skin barrier recovery
- Formulation issues for skin hydration: This should be considered
- Biological principles of dermal hydration

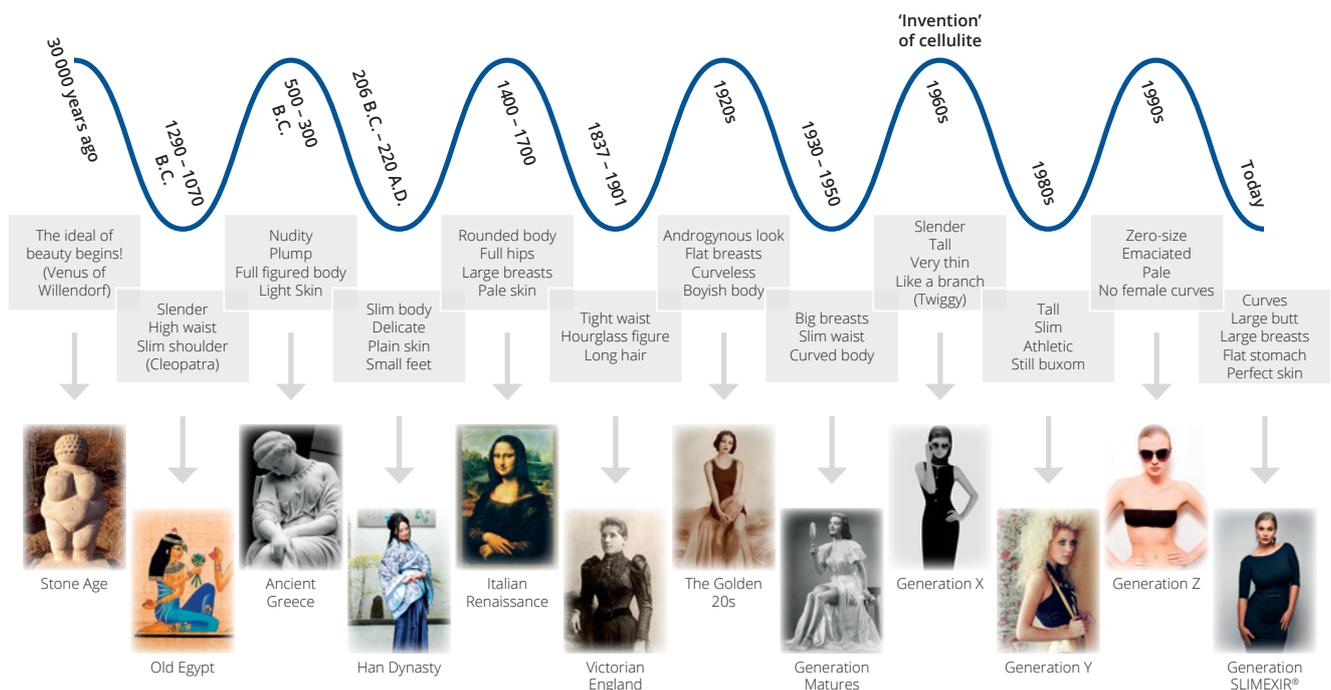
Many thanks to all our participants in London and Manchester for the fascinating discussions and contributions, thank you also to our suppliers Ajinomoto, Sytheon and RAHN-Cosmetic Actives for their fantastic support!



Emotion Lotion with 3% SLIMEXIR®

Combined tightening effect
for eyes and body

BEAUTY IN THE COURSE OF TIME THE SILHOUETTE-REFINER FOR YOUR IDEAL OF BEAUTY



One should never underestimate the power of beauty and the beauty of power.

Emotion Lotion with 3% SLIMEXIR®

Key ingredients

SLIMEXIR®: The Silhouette-Refiner changes the whole body image from tip to toe.

How to use: Gently apply this cream every morning and evening on your face and body.

St	Substance	INCI name USA	% [w/w]	Manufacturer
1	Water demin.	Water	74.00	several
	Dermosoft MCA Variante	Dipropylene Glycol, Caprylyl Glycol, Glyceryl Caprylate	1.00	Dr. Straetmans, DE
2	Tego Carbomer 340 FD	Carbomer	0.40	Evonik Industries AG, DE
3	Tegosoft CT	Caprylic/Capric Triglyceride	8.00	Evonik Industries AG, DE
	Tegosoft DEC	Diethylhexyl Carbonate	5.00	Evonik Industries AG, DE
	Abil Care 85	Bis-PEG/PPG-16/16 PEG/PPG-16/16 Dimethicone, Caprylic/Capric Triglyceride	2.00	Evonik Industries AG, DE
	Abil 350	Dimethicone	2.00	Evonik Industries AG, DE
	Amisoft HS-11P(F)	Sodium Stearoyl Glutamate	0.20	Ajinomoto, JP
	Keltrol CG-SFT	Xanthan Gum	0.20	CP Kelco, US
	Perfume Vital N123	Fragrance	0.10	Huber the Nose, CH
4	NaOH solution 10%	Sodium Hydroxide, Water	1.10	several
5	SLIMEXIR®	Water, Levan, Cynara Scolymus (Artichoke) Bud Extract, Decyl Glucoside, Phenethyl Alcohol, Citric Acid, Glucose, Caffeine, Theobromine, Methyl Xanthine, Paraxanthine	3.00	RAHN AG, CH
6	Dow Corning EL-9240 Silicone Elastomer Blend	Dimethicone, Dimethicone Crosspolymer	3.00	Dow Corning, US



Powder + Water = Cleansing foam

The beauty formula from Japan

A powder that can be used as a deep pore cleanser?
Another beauty trend originating in Japan ...

The powder which foams with water, cleanses gently and deeply without drying out the skin. A definite advantage of a powder cleanser is that it cannot leak from its container and saves space which makes it convenient to take on your travels. Being a powder means it does not need preservatives & emulsifiers.

The ideal “partners in crime” for this product application are enzymes for a so-called **Enzyme Peeling Powder**.

Enzymes are biological catalysts that trigger, speed up or slow down chemical reactions in living cells and so participate in building up or breaking down metabolic processes in the body.

There are various enzymes that can be of great use to the skin. They help to remove dead skin cells which prevent the drainage of sebum. Skin impurities are therefore minimised. Enzymes break down protein building blocks in the skin and ensure that dead skin cells are softened and can be washed off shortly after applying the product without a great deal of “rubbing”. Pore size is also reduced and the skin is then ready for further care products. The skin looks visibly smoothed and even.



The main advantage of enzyme powder cleansers is that no other cleansing product such as an exfoliator or skin tonic is necessary. This cleansing method is therefore highly suitable for sensitive skin because no rubbing action is required.

Such a product could be one of the following:

St	Substance	INCI name USA	Pos.	% [w/w]	Manufacturer
A	Amisoft LS-11	Sodium Lauroyl Glutamate	1	45.00	Ajinomoto, JP
	Micro-Talc FC 8-KN	Talc	2	50.00	Mondo Minerals, NL
	Keltrol CG-RD	Xanthan Gum	3	2.00	CP Kelco, US
	Zymo Clear MD	Maltodextrin, Subtilisin, Lipase	4	3.00	I.R.A. Istituto Ricerche Applicate S.R.L., IT



ZYMO CLEAR MD

Zymo Clear MD consists of the enzymes lipase and protease combined with maltodextrin. Proteases are responsible for gentle keratolysis and smoothing of the skin. While lipases help to minimise the sebum content and promote skin cleansing.

AMISOFT LS-11

This is an extremely mild and natural surfactant based on amino acids in powder form. Amisoft LS-11 foams up when water is added. After cleansing, your skin feels soft and supple without any dryness.

KELTROL CG-RD

This xanthan gum type swells as soon as you start working it with the hands and gives the cleansing foam viscosity.

MIRO TALK FC 8-KN

Talc serves as a neutral filler in this product.

HOW DO I USE THESE PRODUCTS?

- Wet the hands with water
- Put a hazelnut-size portion of the product on your moistened hand, foam up with some water and spread around your damp face.
- To allow the enzyme to take full effect, the exfoliator needs to be foamed up with water.
- Finally rinse off with lukewarm water.
- Avoid the eye area when applying the product. Also avoid inhaling the exfoliator powder.
- Apply the enzyme exfoliator once or twice a week.

The special foam experience ...

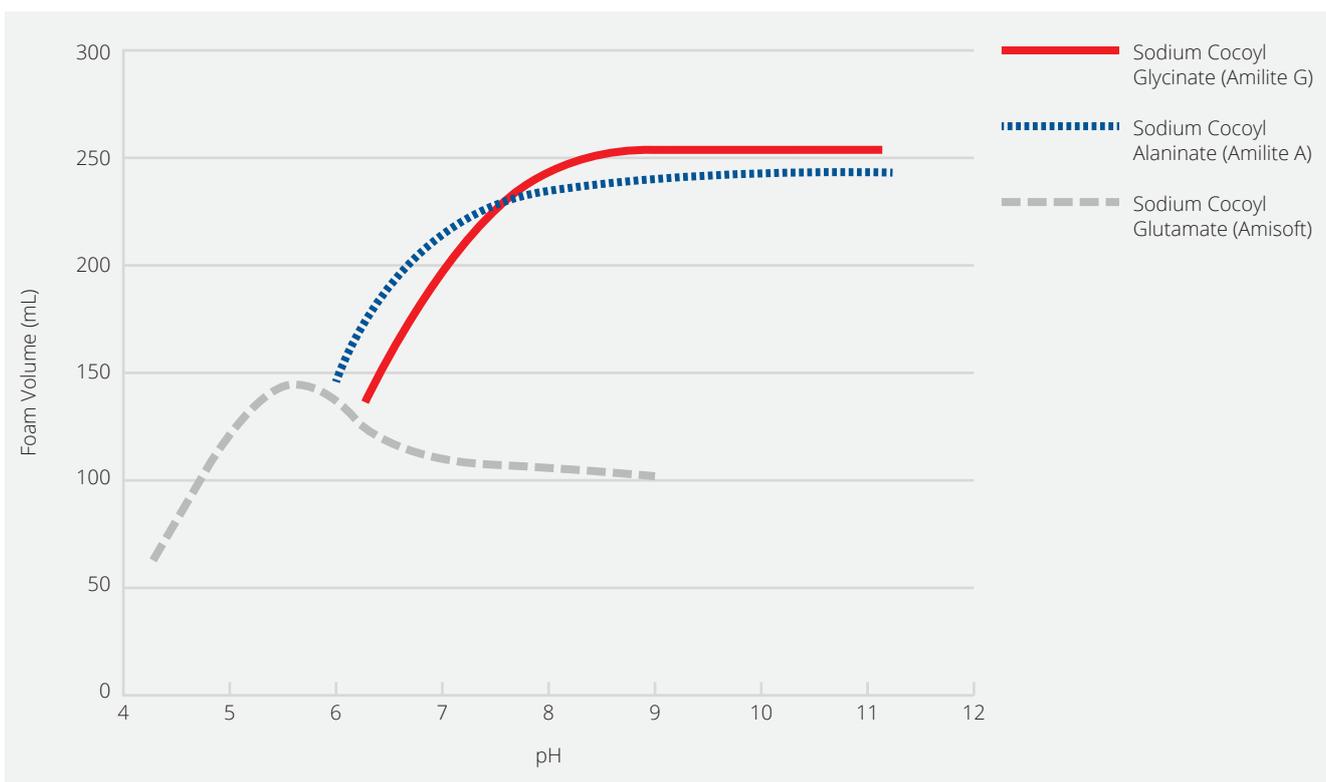
In Japan, new products are currently coming onto the cosmetics markets that offer a particularly creamy and long-lasting thick foam. This accompanies the texture trend they have already sparked over here so that the consumer is given a full cosmetics experience and feeling of luxury.

And this creamy, long-lasting foam certainly does feel fantastic and is exciting to use. You can definitely feel the creaminess of the foam when you foam it up and throughout the entire cleansing process.

What it needs to achieve this is primarily a suitable surfactant because the foaming characteristics and foaming stability vary greatly according to the surfactant used – and that is exactly

what makes the difference. Surfactants known for creating a wonderful, creamy foam are the acylglutamates – namely sodium/disodium cocyl glutamate (Amisoft types). With a maximum volume at a pH of 5.5., this surfactant is ideal for formulations in the slightly acidic area and so very popular in natural cosmetic products.

If you now take a look at the graph showing foam volume in relation to pH value, there are some interesting findings. A pH value of about 7 (and higher) delivers undreamt of foam values with acylglutamates! In particular, the more water-soluble potassium salt with the INCI designation potassium cocoyl glycinate seems to be a particularly exciting candidate (Amilite GCK-12H) for formulations with outstanding foam properties.





Mild amino-acid surfactants are already so popular in Japan that they are a byword for gentleness and care. Products with a high content of amino-acid surfactants can therefore be positioned as high quality with good skin tolerance by the consumer. This has led to new amino moist or amino care concepts which are even revealed in the product names (Kosé: Je l'aime Amino Moist & Smooth Shampoo).

It doesn't matter whether it is applied from a foam pump, a bottle or a tube – the rapid foaming and long-lasting foam stability in all product applications shows how different they are to existing products on the market. Even when lipids are present, you get a voluminous and creamy foam.

When using Amilite GCK-12H, a pH value of at least 6.5 is recommended. Under a pH of 6.5, it makes more sense to use Amisoft CS-22 or ECS-22W from the foam-volume perspective. Amisoft can be used for certified natural cosmetics (COSMOS or Natrue). Amilite is non-compliant with these natural cosmetic certifications.

The two examples of formulations shown below incorporate the use of Amilite GCK-12H. Our application technology laboratories in London or Zurich would be happy to answer any questions you may have on specific issues at any time.



SHOWER GEL FROM AJINOMOTO

PH VALUE: 6.0–6.5

St	Substance	INCI name USA	% [w/w]	Manufacturer
1	Amilite GCK-12H	Sodium Cocoyl Glycinate, Water	10.0	Ajinomoto, JP
	Zohartaine ABC 45	Cocamidopropyl Betaine	6.2	Zohar Dalia, IL
	Texapon N70	Sodium Laureth Sulfate	9.0	BASF, DE
	Propylene Glycol	Propylene Glycol, Water	2.0	several
	Dehyquart CC 7	Polyquaternium-7	1.0	BASF, DE
	Water demin.	Water	ad 100	several
2	Ajidew NL-50	Sodium PCA, Water	1.0	Ajinomoto, JP
3	EMALEX EG-di-SE	Glycol distearate	3.0	Nihon Emulsion, JP
4	Citric Acid solution 10 %	Citric Acid, Water	3.22	several
5	Preservative	tbd.	q.s.	several
6	Fragrance	Fragrance	q.s.	several

FOAMING SHOWER CREAM FROM AJINOMOTO

PH VALUE: 6.8 – 7.0

St	Substance	INCI name USA	% [w/w]	Manufacturer
1	Water demin.	Water	ad 100	several
2	Carbopol AQUA SF-1	Acrylates Copolymer	6.00	Lubrizol, US
3	Euxyl PE 9010	Ethylhexyl Glycerin, Phenoxyethanol, Tocopherol	0.30	Schülke & Mayr, DE
	Emal E-27C	Sodium Laureth Sulfate (27 %)	18.00	Kao, JP
	Softazolin CP	Cocoamidopropyl Betaine (30 %)	15.00	Kawaken Fine Chemicals, JP
	Amilite GCK-12H	Sodium Cocoyl Glycinate, Water	15.00	Ajinomoto, JP
4	Nikkol Sweet Almond Oil	Prunus Amygdalus Dulcis (sweet almond) oil	5.00	Nikko Chemicals, JP
	Fragrance	Fragrance	q.s.	several
5	NaOH solution 10 %	Sodium Hydroxide, Water	0.96	several

FEEL GOOD SHOWER MILK

PH VALUE: 7.0 – 7.5

St	Substance	INCI name USA	% [w/w]	Manufacturer
1	Water demin.	Water	35.20	several
	Glycerin 85 %	Glycerin, Water	3.00	several
	Prodew 600	Betaine, Sodium PCA, Sodium Lactate, PCA, Serine, Alanine, Glycine, Glutamic Acid, Lysine HCL, Threonine, Arginine, Proline, Water	1.00	Ajinomoto, JP
	AG014P Aloe Gel Dec 10x	Aloe Barbadensis Leaf Juice	1.00	Terry Laboratories, Inc., US
	Amilite GCK-12H	Potassium Cocoyl Glycinate, Potassium Cocoate, Water	28.00	Ajinomoto, JP
	Plantacare 818 UP	Coco Glucoside, Water	12.00	BASF, DE
2	Genuvisco CG-131	Chondrus Crispus (Carrageenan)	0.80	CP Kelco, US
	Keltrol CG-SFT	Xanthan Gum	0.30	CP Kelco, US
	Sunflower Oil, organic	Helianthus Annuus (Sunflower) Seed Oil	8.00	All Organic Trading GmbH, DE
	Coconut Oil refined, organic	Cocos Nucifera (Coconut) Oil	4.00	All Organic Trading GmbH, DE
	Virgin Maracuja Oil	Passiflora Edulis Seed Oil	1.00	Laboratoires Expanscience, FR
	Dermofeel MT 70 non-GMO	Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	0.20	Evonik Dr. Straetmans, DE
	Exotic Dream	Fragrance	1.00	Aromatic Flavours & Fragrances Europe Ltd., GB
	Verstatil PC	Phenoxyethanol, Caprylyl Glycol	1.00	Evonik Dr. Straetmans, DE
3	Citric Acid solution 10 %	Citric Acid, Water	3.50	several

Interested? Ask your RAHN-team for detailed information.

Active Beauty – Athleisure and Athbeauty Trends

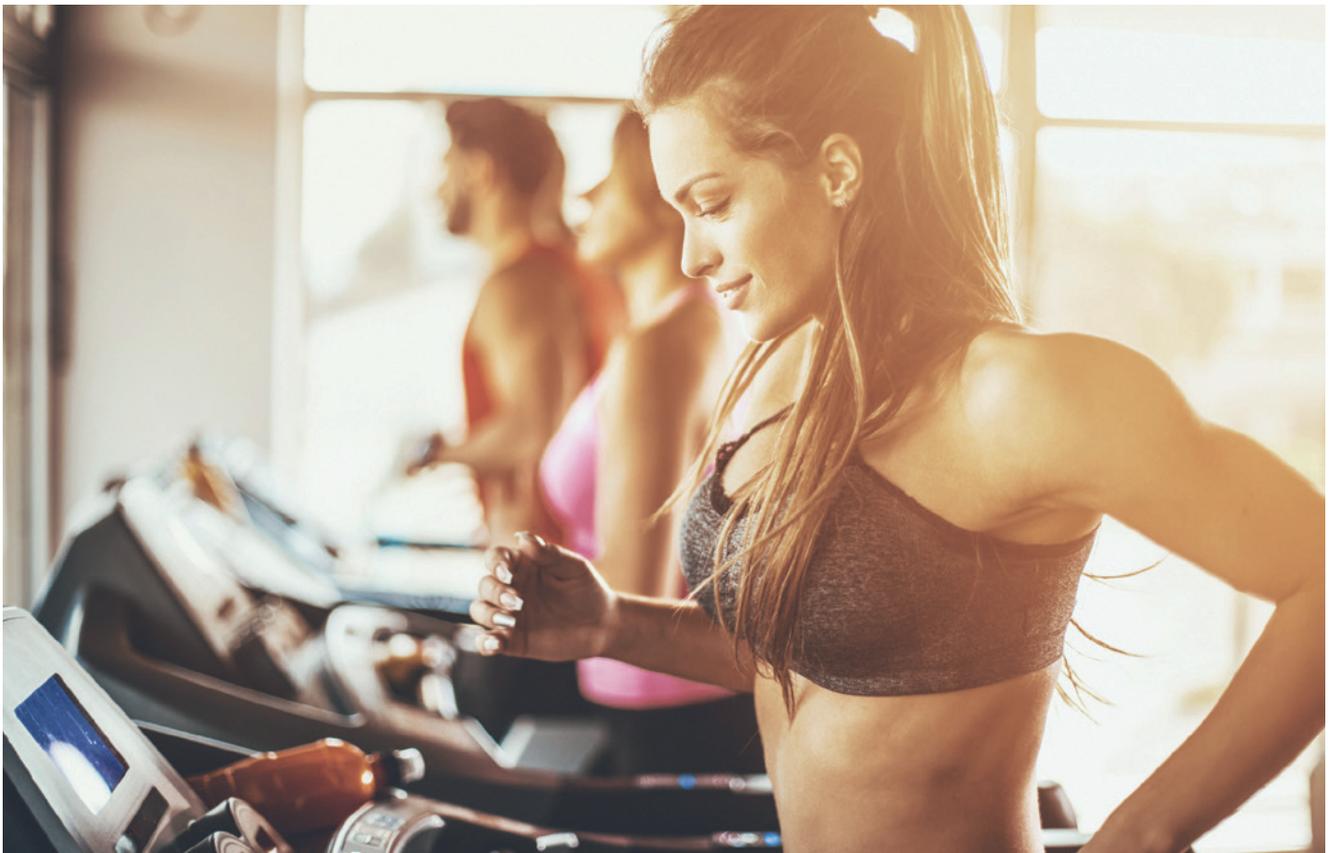
This global beauty trend is based on the phrase “a healthy mind in a healthy body”. There is a rising demand for products supporting a healthy and physically fit lifestyle, indeed this is now more important than ever.

As consumers are increasingly being encouraged to train body and mind, cosmetic brands that meet this trend with their range of products can particularly address the needs of active consumers.

According to research carried out by Mintel, 48% of German consumers are interested in body care products that help re-

generation after sport. 46% of Spanish consumers find fragrances that encourage them to intensify their workouts really exciting. Among French consumers, 36% claim they are interested in sportswear that releases care products or scents when the body temperature changes. In Italy on the other hand, 53% of consumers claim they are interested in care products that strengthen and prolong the effects of their training. (Source: Lightspeed/Mintel)

Innovate products for before, during and after sport are in demand...



AQUA-FITNESS

Water sports enthusiasts in particular need to make sure they use skincare products with a high moisture content because water dries out the skin and hair. Water leaches the skin's own oils from the upper skin layer – this effect is intensified by skin and hair cleansing products as well as chlorine additives in the water.

Aqualicia® helps to re-energise water distribution through the absorption and fixing of water. The NMF-forming components of the skin are stimulated which leads to an increase in the moisture content of the stratum corneum.

Gamma-MAX and Oligo are amino-acid based active ingredients that immediately moisten the skin with lasting effect. γ -MAX and γ -Oligo are available as high- or low-molecular-weight hydrolysates depending on whether the product is designed to take effect on or in the skin. γ -MAX and γ -Oligo also inhibit hyaluronidase whereby the dermal and topically applied hyaluronic acid is inhibited in enzymatic degradation. The barrier function of the skin is also strengthened which leads to an increased resistance to external aggressors.





OUTDOOR-SPORT

...when the great outdoors becomes your gym. If you train outdoors, you must not forget sun protection. You only maintain protection if you regularly re-apply sun protection cream. Because sweat, sand and water slowly but surely can remove the protection you apply. The consequence is sunburn. And hair is also not spared from sun damage either. That is why it is a good idea to cover your head when training outdoors or apply a suitable haircare product with UV-protection.

BI-READY Slim and Sun Spray with **Macaline®** and **α-Lupaline®**. This biphasic product was especially developed to prepare your skin for the sun's rays and protect it from UV damage and also refine your appearance.

Synoxyl® HSS is a multifunctional photostabiliser with excellent SPF-booster properties. Oxidation damage resulting from UVA-induced radical formation is also reduced. Synoxyl® HSS is biodegradable, supports the water resistance of the product and is therefore also very good in cosmetic products for water sports enthusiasts.

Silkgel is a functional silk polypeptide which is made in a biotechnological process. A concentration of only 2% is enough for the breathable protein film to provide effective protection and it therefore acts like a "STOP" sign for environmental pollution, harmful substances, microorganisms and irritants. Another benefit is the fixing property of Silkgel. By forming a three-dimensional, breathable and non-occlusive film on the skin, substances applied are fixed which leads to prolonged effectiveness.

CELLIGENT® strengthens the skin's natural defensive mechanism against the sun's rays and protects the DNA in the skin cells. The risk of long-term damage and premature ageing of the skin is minimised.



SELF DEFENCE

...when hair and skin need special protection due to a disturbed and stressed barrier function.

ORMESIA®, your daily protector against IN & OUTdoor pollution. ORMESIA® activates the skin's biological self-defence mechanism, so-called hormesis, offers protection against negative environmental effects and protects against the damaging effects of the sun. But is it enough to just protect the skin from UV light? The latest findings on skin-ageing show that infrared light, "blue light", and high-energy visible light (HEV), which is used in fitness studios, can trigger oxidative stress and so contribute to skin-ageing.

α-LUPALINE® protects the skin from environmental stimulants and defends against oxidative stress which is caused by daily exposure to light such as IR, UV and "blue light".

MYRAMAZE®: Bodyguard and protective factor against blue light for stressed and sensitive skin. MYRAMAZE® protects the skin cells in dry conditions and stabilises the skin's own moisture and lipid barrier. Skin regeneration is thereby improved.

PROTEOLEA®: Cell-recycling manager and anti-blue-light formula for skin that looks six years younger in only four weeks. PROTEOLEA® smooths the skin, dispenses moisture and promotes skin regeneration, leaving the skin looking more radiant.



WELLNESS

MYRAMAZE®: 48 h+ skin wellness. Treat your skin to a bit of a break. MYRAMAZE® gives a feeling of calm and a new sense of well-being in just five steps. Your skin will flourish noticeably. Dry skin areas are supplied with moisture; the stressed skin barrier gains renewed energy and especially sensitive skin areas are revitalised.

DEFENSIL®-SOFT is based on the edible fungus *Albatrellus ovinus*, also known as the truffle of the north. Thanks to its active ingredients grifolin, neogrifolin and scutigeral, DEFENSIL®-SOFT effectively inhibits the pain receptor TRPV1, a mediator for hypersensitive skin and premature skin-ageing. When applied to the skin, DEFENSIL®-SOFT reduces discomfort and skin irritation in minutes, prevents “thermal ageing” and calms allergy-prone skin.

“Yoga for the skin” with **Synastol® TC**. *Terminalia chebula*, known as Arura in Tibet is a well-known and very traditional plant used in Ayurvedic medicine. The tree grows in deciduous forests on dry slopes in various regions of Asia and has characteristically brownish stone fruit. Life-giving, nourishing and body-strengthening effects are attributed to the fruit and it is used to normalise the body's balance.



LEGS, TUM AND BUM

SLIMEXIR® is your whole-body fitness trainer to bring problem areas into form and keep them there. Activate and firm up is the motto here – whether it is your legs, tum or bum – or even neck and arms. The in-vivo empirical evidence is unusually extensive for this power ingredient.

LIFTONIN®-XPERT is the ideal partner for products to combat flabby skin or stretch marks – for that extra portion of high-grade collagen for legs, tum and bum.

Macaline: Increase microcirculation of the skin with the power of the Peruvian maca plant and unwanted fat pads will just melt away. The skin's elasticity will be increased at the same time and the drainage activated with lasting effect. This makes your workout twice as much fun! Maximum effects thanks to plant-based stimulation – welcome to the start of the bathing season ...

Happiness begins as soon as you feel good and feeling good is the new “looking good”.

Inspired? If you have any questions, we are happy to help.

Hydration vs. Moisturisation

For many people, “hydration” and “moisturisation” are interchangeable words that mean the same and describe the same thing. Both are important components to ensure that our skin retains the moisture it needs to fight dryness, signs of ageing and environmental damage. The difference is mainly in how this result is achieved.

The main function of a **“moisturiser”** is to minimise transepidermal water loss (TEWL). In this case, the barrier lipids in the “bricks and mortar” structure of our corneal layer play an important role.

Normal, healthy skin can produce sufficient lipid cells and is in active communication with our sebaceous glands to produce more oil or sebum if required. People with an impaired lipid barrier on the other hand, often suffer from dry skin as the skin cannot coat the surface with enough sebum. The skin barrier then becomes more permeable for water and the TEWL rises. This loss is uncontrolled.

The TEWL reflects the functionality of the skin barrier. A “moisturiser” therefore needs to provide support in correcting the lipid barrier so that the skin can regain a healthy moisture balance.



While “moisturisers” are there to seal moisture into the skin, **“hydrators”** are products that raise the water content of the skin. The water balance of our skin is in a constant exchange with the air in our environment. Water evaporates from the skin into the environment and at the same time, the skin can also capture water from the surrounding air and incorporate it in the corneocytes of the skin. The skin uses a mixture of natural moisturisers for this purpose: the so-called Natural Moisturising Factors (NMF). These are water-loving substances such as hyaluronic acid, urea, pyrrolidone carboxylic acid (PCA), amino acids, salts (such as sodium lactate) or glycerine. They ensure that the water remains in the corneocytes. NMFs are constantly recreated in the skin and so prevent the skin from drying out.

Dry air, long periods of sunbathing or even aggressive cleaning products can lead to a removal of moisture and a loss of Natural Moisturising Factors. This is where so-called “hydrators” come

into play. This can be a serum or moisture concentrate for example which contains the hygroscopic ingredients referred to and so counteracts this deficit.

Conclusion: Due to the structure of our skin, we should be integrating both “hydrating” and “moisturising” products into our daily skincare. Does this mean that we have to use two different products? Not necessarily, because many moisturising creams nowadays are o/w-based and usually contain both hygroscopic ingredients and oil components. If you have very dry skin, it is definitely advisable to use two products such as a moisturising toner or serum followed by a richer face cream.

RAHN have spent a lot of time researching this topic. If you are interested in receiving more information, please let us know and we will send you the documents you are interested in.

Gel-to-Milk, water activity

and microbial growth

During the Gel-to-Milk development process, we were often faced with the question of whether to include preservatives in a product with a water content of 5%. Good news – the answer is “No”. We were able to confirm this by measuring the water activity.

Generally, water activity is a very important parameter for the preservability of cosmetics products. It is a measure of the freely available water that is vitally important for many reactions catalysed by enzymes and especially for the growth of microorganisms. Water activity is also known as a_w . This is dimensionless and lies between 0 and 1. This water activity should not be confused with the water content – the “bound” water – of a product.

The water activity influences the following properties of a product:

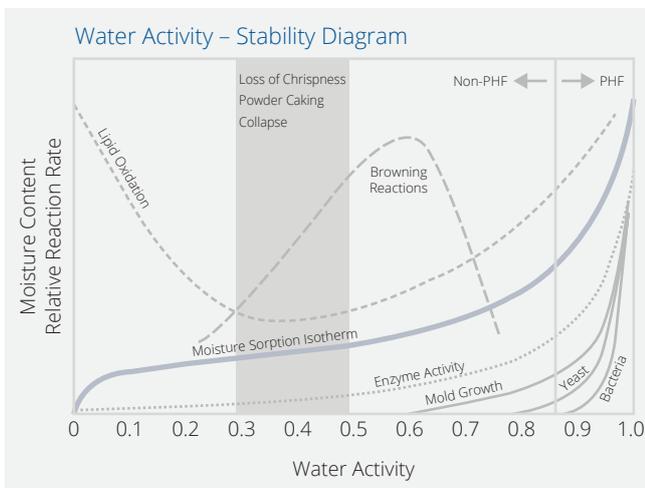
- microbiological stability
- chemical stability
- enzymatic stability
- colour
- preservability
- storage/packaging

Parameters such as water activity, pH or temperature have a direct influence on the growth of microorganisms whereby water activity and the pH value are the most important parameters. Free, unbound water within a product is available for moulds, yeasts and bacteria and is responsible for their growth. The water activity indicates whether and what type of microorganisms can grow in our product.

For various microorganisms, there is a minimal a_w value. If the water activity is below this value, growth is inhibited or prevented.

Water activity	Organisms
$a_w = 0,91 \dots 0,95$	many bacteria
$a_w = 0,88$	many yeasts
$a_w = 0,80$	many types of mould
$a_w = 0,75$	halophilic bacteria
$a_w = 0,70$	osmophilic yeasts
$a_w = 0,65$	xerophilic moulds





This means that there may be water in our product but at a sufficiently low energy level, microorganisms cannot remove the water to support their growth. This “desert-like” state produces an osmotic imbalance between the microorganisms and the surrounding environment. As a consequence, the growth of the microbes is inhibited, the number is reduced until they eventually die out.

We carried out a measurement of water activity in the following formula “Gin Fizz Facial Cleanser”:

St	Substance	INCI name USA	% [w/w]	Manufacturer
1	Glycerin (99 %)	Glycerin	31.20	several
	Sisterna SP70-C	Sucrose Stearate	1.00	Sisterna B.V.
	Sisterna L70-C	Aqua, Sucrose Laurate, Alcohol	2.50	Sisterna B.V.
	Apperitivo 351855	Parfum	0.30	Luzi, CH
	Deionised water	Aqua	5.00	several
2	Caprylic Capric Triglyceride	Caprylic/Capric Triglyceride	60.00	several

The measurement parameters are as follows:

Product: Gin Fizz Facial Cleanser (GE.003) of Sisterna B.V.

Equipment: Novasina Aw Sprint, TH-500 was used for the measurement

Temperature: The measurement was carried out at 25°C.

pH value: N/A

Result: The water activity was measured as $a_w = 0.42$.

Conclusion: The formulation “Gin Fizz Facial Cleanser” contains as a whole about 6.25 % water (5 % water and 1.25 % water from Sisterna L70-C).

The a_w value of this formulation is 0.42 which is well under 0.6. The energy level is therefore too low to encourage the growth of microorganisms, i.e. microorganisms no longer grow under an a_w value of 0.6.

The Cosmetic

Encyclopaedia

for ...

...Immunology

...INCI

...Inflammation

...Inflamm-Ageing

...Inhibitors

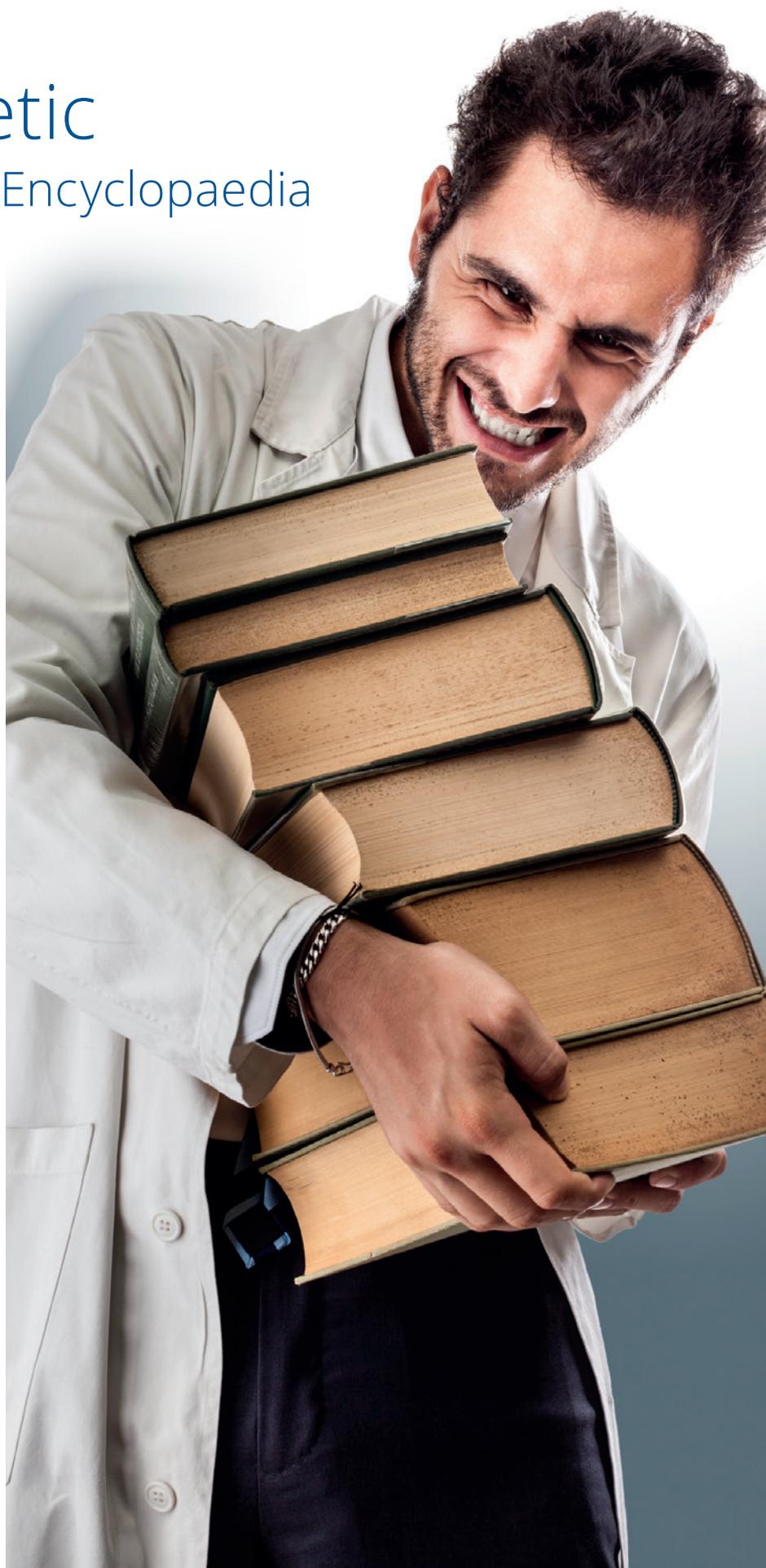
...Innovation

...In-vitro

...In-vivo

...Irritants

...Insect repellent



Immunology

Immunology = the study of the biological and biochemical bases of the body's internal defence against pathogens such as bacteria, viruses and fungi as well as other exogenous substances such as biological toxins and pollutants.

INCI

INCI = stands for International Nomenclature of Cosmetic Ingredients. This is an international guideline for the correct specification of ingredients in cosmetics. Standard EU-wide designation code for cosmetic ingredients. All the raw materials in a product are listed with their INCI-designations in descending order of concentration. For concentrations under 1 %, the order is not important and dyes are also generally listed at the end.

Inflammation

Inflammation = redness, swelling, pain, tenderness and disturbed function of an area of the body, especially as a reaction of tissues to injurious agents.

Inflamm-Ageing

Inflamm-ageing is a term for an ageing effect which is triggered by an inflammatory response.

Inhibitors

Inhibitors = substances that can slow down or prevent chemical reactions e.g. antioxidants.

Innovation

Innovation is a process which brings a product up-to-date by applying new procedures, introducing new techniques or establishing successful ideas.

In-vitro

In-vitro = comes from the Latin and stands for "in glass". It is an expression for scientific experiments that take place in a laboratory – in a test tube and not on a living organism.

In-vivo

In-vivo = also comes from the Latin and means "in or on a living organism". This means that scientific experiments are carried out on a living organism.

Irritants

Irritants = mechanical or chemical irritants for the skin that can cause inflammation or discomfort on contact. They damage the epidermis, the cell membranes and dissolve protective fats from the skin (e.g. strong alkalis, solvents or acids).

Insect repellent

Insect repellent is applied to the skin to repel midges, flies, horse flies and ticks. "Repellent" comes from the Latin "repellere", which means to drive back. Depending on the active ingredient used and its concentration, various types of insect are repelled for a certain period of time. Well known active ingredients are DEET or Icardin.

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