

With tradition, ambition and responsibility – Biesterfeld enjoys continued success by focussing more on sustainable and natural based ingredients

A conversation with Bettina Heick,
Business Manager LifeScience, Biesterfeld Spezialchemie GmbH



Bettina Heick studied for her diploma in Business Management at technical college. After completing her commercial training through study and work, she worked in lubricant sales at an American mineral oil company for two years. She joined the Biesterfeld Group in 2005.

Bettina Heick has taken on various roles at Biesterfeld Spezialchemie over the past 14 years. In the past year, she took over leadership of the LifeScience business unit and has been responsible for the Personal Care and Cleaning strategic market segments ever since. Bettina Heick has also acquired the Diploma of Cosmetic Science from the British Society of Cosmetic Scientists, a one-year advanced training programme in Cosmetics/Personal Care.

EURO COSMETICS: *Mrs Heick, you have recently entered into a partnership with NUWEN by Setalg, a French raw material manufacturer specialising in the production of algae products. What products are you offering?*

Bettina Heick: For some years now, we have been seeing a growing demand for natural and derived natural raw materials. That is why we have intensively expanded our offering for natural based ingredients to the current trends towards sustainability, avoiding microplastic and the use of effective silicone alternatives. Partnering with NUWEN by Setalg enables us to build upon this increasing demand to include an extremely interesting range of products using a number of algae-based raw materials.

Our Personal Care product range also extends from conventional surfactants to innovative active ingredients. We offer a huge selection of interesting raw materials with a clear focus on specialist products and products requiring explanation. Standard products, such as fatty acids, preser-

vatives and UV filters, complete our vast portfolio.

EURO COSMETICS: *NUWEN by Setalg is located on a peninsula in the Atlantic Ocean within a protected site in Europe. This enables the harvesting of marine products and processing of the same for natural cosmetic products. What's so special about that?*

Bettina Heick: The algae area is not far from the Pleubian peninsula in North Brittany, France, and is part of Natura 2000, a network of sites in the European Union that enjoys special protection. With the help of this network of protected sites, the conservation of endangered plant and animal species is ensured. Over 800 different species of algae can now be found off the Pleubian coast.

All of the algae from this cultivation area is harvested by hand. The French government appoints special "Geominers" (name derived from the old Breton word "Geoman" (seaweed)) for this. Strict rules apply to the harvesting:

For example, harvesting can only take place at specific times and each year, zones are defined where harvesting is prohibited to allow the young plants to grow and mature sufficiently.

EURO COSMETICS: *The macroalgae used for cosmetic applications mainly live in the sea. The effectiveness and quality of algae-based cosmetic preparations therefore depends on the origin, harvesting season, obtaining and processing of the algae. What can you tell us about these procedures?*

Bettina Heick: A consistent quality of algae is guaranteed thanks to the protected location in the Atlantic and to the declaration as a Natura 2000 site. While some plants can be harvested all year round, such as *Fucus vesiculosus* or *Ulva lactuca*, there are types that can only be harvested at specific times.

After harvesting, the algae are sorted, washed and dried before being micronised. The micronisation process is particularly important here as it breaks down the cell



walls of the algae, making the active ingredients, usually found inside the cells, more available.

The algae can also be processed in their original form, however. In other words, we offer powder and flakes from most macroalgae.

EURO COSMETICS: *Algae are true all-rounders from the sea and, in cosmetics, they act like a shield, protecting the skin from drying out and evaporation. What active ingredients are present in algae and which skin types are they suitable for?*

Bettina Heick: Algae are actually jacks-of-all-trades. As seen in figure 1, they consist of 100 % active substances and provide numerous positive effects for the body. They improve skin moisture and protect against environmental influences. Fucus, Dulse and Spirulina, for example, help with collagen synthesis and have antioxidant properties. Sea lettuce, Irish moss and sea spaghetti provide a fresh complexion. Algalithe, a red macroalga, has water

and oil-repellent properties, due to its fossilised structure, making it suitable for formulations where a mattifying effect is required. Due to their versatility, algae are therefore suitable for all skin types.

Choosing the right algae for the functional application in each instance is crucial. It has been scientifically proven that effects such as anti-ageing, firming, regenerating

or moisturising can be achieved using the right algae.

EURO COSMETICS: *Small microalgae are particularly valuable. These include Spirulina. What is it used for?*

Bettina Heick: Microalgae, such as Spirulina, have been familiar components for many years in the food supplement sector

ALGAE COMPOSITION

■ Lipids ■ Proteins ■ Antioxidants ■ Fibres ■ Minerals

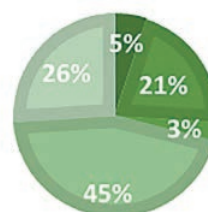


Figure 1:
Composition
of the algae;
infographic:
Biesterfeld



Figure 2: Spirulina as an ingredient in the ETERNAL Classic mask creation; photo credit: NUWEN

and they are also referred to as a superfood. These days, there is even ice cream available that contains Spirulina as one of the main ingredients. Spirulina (figure 2) contains a number of nutrients and vital substances which are rapidly available and thus have a positive impact on the energy balance of cells. Numerous scientific studies have proved the positive health impact of this alga. In cosmetics, microalgae are used to improve the skin's elasticity or for their antioxidant properties.

EURO COSMETICS: Which products contain algae?

Bettina Heick: Algae are found in many cosmetic products: from facial care and shower gel to body lotion. Nowadays, more and more producers and active ingredient manufacturers are viewing algae as an extremely interesting and versatile raw material.

Algae's numerous positive properties, combined with the trend towards renewable raw materials, mean they are already an attractive raw material and this will continue to be the case in the future. Algae also ensure a positive CO₂ balance since they absorb more CO₂ than they produce.

EURO COSMETICS: New for this year are the Cosmos Organic certified peel-off products from NUWEN, such as the face masks, which are currently hugely popular here. What sort of masks are they and how are they used?

Bettina Heick: Biesterfeld distributes the holistic mask portfolio by NUWEN. It contains three different peel-off types: Translucent, Classic and a Certified Organic

Base. Unlike conventional peel-off masks, which are often polyvinyl-based and contain preservatives, the masks from NUWEN noticeably improve the skin's moisture and do not contain preservatives.

In addition to ready-made mask bases based on alginate, it is possible to create custom mask concepts. This is a unique concept, with NUWEN responding to the growing demand for mask solutions.

The customised formulas are created using a 5-step system (figure 3):

First, the customer chooses whether they require a rinse-off, peel-off or cleansing mask (step 1). Then the active ingredients are chosen (step 2) together with any pigments and optical effect agents, such as hibiscus or sea lettuce (step 3). Last but not least, a fragrance (step 4) and suitable packaging (step 5) can be chosen.

The mask base is prepared with water. When applied to the face and neck area, a soft and refreshing texture develops that, after a set treatment time, can be removed "in one piece".

Overall, the different types vary in their texture and composition. With the ready-to-use masks and the customisable solutions, our customers benefit from a holistic mask concept for every application and every skin type.

Macroalgae and microalgae, plus various marine actives, complete the product range. One highlight is Atomic Seawater, which is suitable for sensitive and extremely dry skin due to its high magnesium and potassium content and has anti-inflammatory properties as well.

EURO COSMETICS: As a company in the chemical industry, Biesterfeld focuses in particular on sustainable development. What is your corporate strategy and how can this be agreed upon with your partners?

Bettina Heick: Sustainability is hugely important at Biesterfeld. We report on all our sustainability-related activities in our sustainability report each year. We work very closely with our partners to develop innovative and sustainable products and raw material concepts that meet the needs of our customers and, of course, also those of the end consumer. We see great growth potential for algae, not only in cosmetics, but also in nutrition and healthcare. We intend to develop our activities here further and expand our product range. We already took part in the 9th European Algae Industry Summit in April this year as a way of connecting with experts. In the future, we will continue to focus on natural cosmetics and take an active part in the dialogue.

EURO COSMETICS: Thank you for the interview.

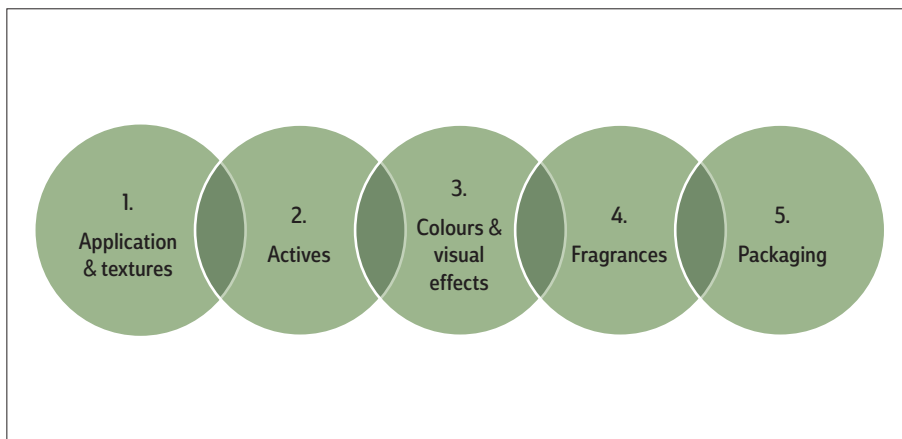


Figure 3: Customised formulas in 5 steps; photo credit: NUWEN