

UPTODATE

The Newsletter for GELITA Customers

#45



Dear reader,

Collagen peptides continue to be in high demand and excel with double-digit growth rates. GELITA is prepared for the increasing demand, and is expanding addition, GELITA clears up the biggest myths about collagen peptides - and supports manufacturers in planning their product portfolios and with their marketing communication. Although collagen peptides are among the most sought-afdiffer from each other.

The fact that GELITA places great importance on customer support and, if so desired, accompanies them every step of the way, is confirmed by Dr. Margarethe Plotkowiak, Head of Global Management Food & Food Specialist in an interview. The immense wealth of experience in our company is particularly helpful. It enables us to anticipate production challenges and come up with solutions.

The advantage for our customers: They achieve their goals faster. Whether the participants at this year's GELITA Symposium hit the target, or more precisely: the goal, was irrelevant. More important was that everyone had lots of fun during the private training session with the ice hockey professionals from the multiple German championship winners Mannheim Adler. And that they were also able to gain many new insights into collagen peptides, megatrends, and trust.

Whatever goals you have set yourself for 2020, we wish you a good start to the new year and the best of luck.

Michael Teppner

Global VP Marketing & Communication GELITA AG

Applications

Gelatine membrane filter in outer space



in Sioux City, success for NOVOTEC® CB800

GELITA Symposium

Active Nutrition



Brief explanation

myth vs. fact



uptodate spoke to Dr. Margarethe Plotkowiak, Head of Global Product Management Food & Food Specialist

Interview

[3] "GELITA supports with words and deeds"



Favorite recipe Coq au vin [15]



"We want our customers to reach their goals faster"

How can food-market products be improved? What role do gelatine and collagen peptides play in this? And to what extent can customers rely on GELITA's support? Dr. Margarethe Plotkowiak, Head of Global Product Management Food & Food Specialist talks about trends, products, consumers, and an immense wealth of experience.

"GELITA supports worthwhile developments with words and deeds"

Dr. Plotkowiak, what's new in the food industry?

Dr. Margarethe Plotkowiak:

There is a general change in thinking. More and more people are looking intensively at their diet and the ingredients of their food, and deciding for themselves what they want to eat and when. That's why there are far more niche products on the market today than a few years ago. One example is "freefrom" products that require no gluten, soy, or milk. Demand is also growing for "Clean Label" products, pure, allergen-free foods without E-numbers, for which our gelatine and collagen peptides are ideal.

What role do international differences play?

Dr. Margarethe Plotkowiak:

No company can launch a product on the world market and assume that this product will work the same everywhere. For example, we have been observing for years that fortified gums, i.e. food supplements in the form of fruit gums, are far more widespread in the USA than in Europe. On a global scale, gelatine textures are among the most appreciated, because they are not possible in this form with other hydrocolloids. In the case of fruit

gums, for example, which are supposed to melt in the mouth at body temperature, only gelatine is suitable. But gelatine is also so abundant because it helps you stay healthy.

Where do you see the greatest potential for gelatine and collagen proteins?

Dr. Margarethe Plotkowiak:

In the traditional gelatine market, this is still confectionery. For bioactive peptides, the greatest market potential is in areas where consumers have the time and money to deal with nutrition trends, i.e. in Europe, the USA, and Latin America. Our natural proteins are free of allergens and, as I mentioned, have no E-numbers, which is particularly important and increasingly appreciated.

How important are collagen proteins in the development of health-promoting foods?

Dr. Margarethe Plotkowiak:

Collagen proteins are easier to use in many products because they influence textures or technological properties to a lesser extent.

They are ideal for beverages because they dissolve very well and often even significantly better than other proteins, and because there are fewer interactions with other ingredients. But our collagen proteins can also be added easily and often in high doses to many other products. And this without the disadvantages known from other proteins, such as a bitter aftertaste or a sandy texture.

How big is the market for health-promoting foods?

Dr. Margarethe Plotkowiak:

According to the Fraunhofer Institute, the global market volume is 180 billion US dollars, with Japan and the USA being the most important markets. In Europe, Germany is the largest buyer of health-promoting foods with a turnover of six billion euros. When you talk to consumers, you find out that many people want to eat healthily. However, most of them are very busy professionally and suffer from "leisure time stress". They don't have the time





to eat the balanced diet they would like. Health-promoting foods are therefore ideal for supplementing the diet. Or, another example, someone only has time for sports once or twice a week and maximizes their physical activity by consuming the appropriate proteins.

Developing a new product is one thing, but manufacturing it is quite another. To what extent does GELITA support its customers? Dr. Margarethe Plotkowiak:

GELITA supports worthwhile developments with words and deeds. Our customers benefit from our decades of experience in a wide range of areas. What this means in detail depends, of course, on the respective products and objectives. In the case of peptides, for example, we provide customers with useful information and studies on the effects with which they can promote their products. All in all, this helps our customers achieve their goals more quickly. Many customers are more than happy to accept our advice.

You were also involved in the development of SMART TECHNOLOGY (ST). What is this innovative process all about and for which products is it suitable?

Dr. Margarethe Plotkowiak:

With SMART TECHNOLOGY, we improved the processing properties of our collagen proteins. This process enabled us to provide our customers with access to new products while keeping our processes simple and robust. With our new product VERISOL® HST, for example, it is relatively easy to produce fruit gums with a high VERISOL® content without any additional investment. Try processing 2.5 grams of VERISOL® into three fruit gums without foam – VERISOL® HST makes it child's play. This is something that the first customers in the USA and Germany have already recognized and launched their first products on the market.

Developing new products is time-consuming and costly. What importance does GELITA attach to improvement and innovation?

Dr. Margarethe Plotkowiak:

A very high one. The competition never sleeps and is doing its best to enter the market with imitation products in all areas. We can only maintain our edge as market leader with "We can often anticipate challenges in production and recommend a solution."

Dr. Margarethe Plotkowiak



value-adding innovations that ultimately also benefit our customers. The fact that this can also lead to numerous internal synergies is an intended and welcome side effect.

What makes your work at GELITA so interesting?

Dr. Margarethe Plotkowiak:

It is tremendously diverse. Much is changing. Sustainability and climate are playing an

increasingly important role. But sugar, fat, and calories continue to be major issues as well. Gelatine and collagen peptides offer undreamt-of possibilities for new solutions.



Collectors for airborne germ are normally used in companies producing pharmaceuticals. Only one company worldwide produces gelatine membrane filters for these germ collection processes: Membrane filters produced by Sartorius are so outstanding that NASA even uses them for its microbiological analyses in the space station.

Membrane filters extract organisms from the air - these are usually living or inactive bacteria or fungi whose genetic material consists of DNA. For subsequent molecular genetic analysis, the sampling procedure itself must avoid introducing DNA that might falsify the result. This is possible with the airborne germ collection method, which uses gelatine membrane filters. As a result, all the germs collected can be examined reliably using molecular genetics. In the same way, the air purity in the International Space Station (ISS) can be monitored specifically by molecular genetics via polymerase chain reaction (PCR) or generally by sequencing.



The Sartorius MD8 Airscan portfolio for the continuous collection of airborne germs.



Gelatine membrane filters retain the required membrane properties for hours.

"As an alternative to molecular air monitoring, we are also investigating cultivation-based detection," explains Kai Nesemann, Product Manager for Microbiology at Sartorius. In order to detect airborne germs, a defined amount of ambient air is sucked in with the collection device. The microbes adhere to the membrane and can then be transferred to a culture medium.

The big advantage is that this makes it possible to represent long-term and ongoing air collection. Because in order

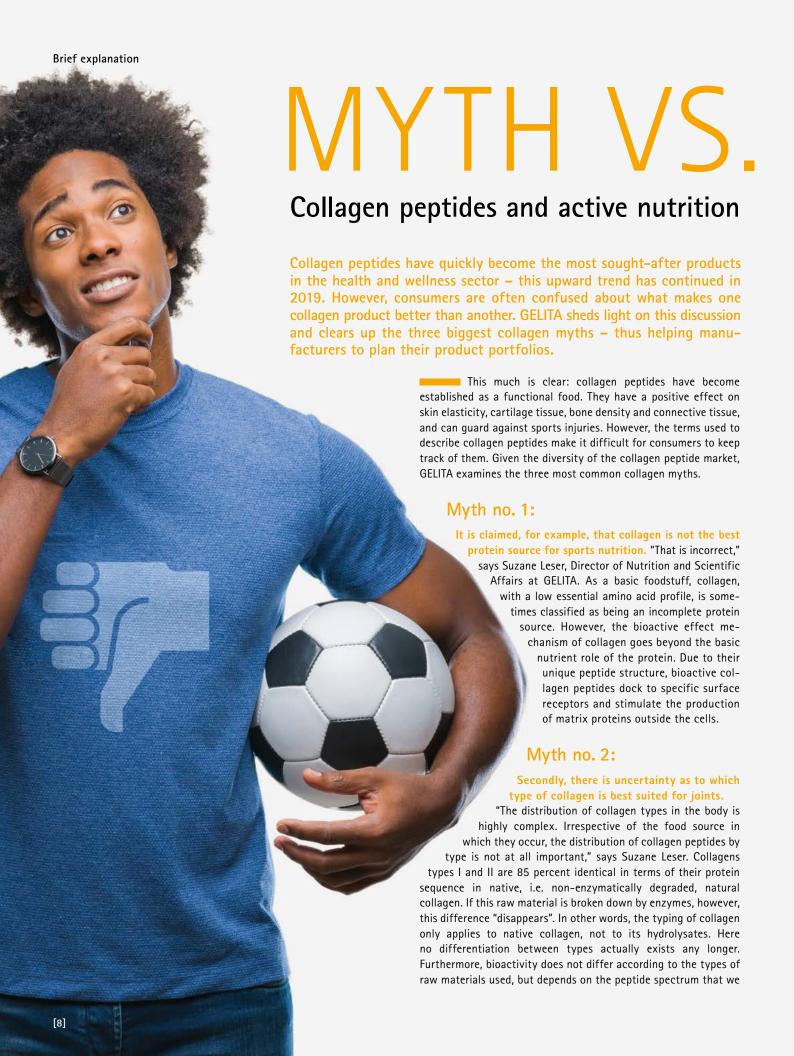
to control a low-germ environment with respect to microbiological quality, a lot of air has to be collected. Every other manufacturer uses agar plates for this process, to which the microbes adhere. However, when air flows onto agar plates, they dry out after 12 to 15 minutes. After that, the microbes no longer stick reliably to the agar and cannot therefore be detected. The necessity of frequently changing the plates in a completely clean room in turn poses the risk of contamination every time.

The germ collection process with gelatine, on the other hand, has an enormous advantage: you can turn on the "vacuum cleaner" and let the airborne germ collector with a membrane filter run for hours. It is not until eight hours later that the filter slowly loses the necessary membrane properties. The gelatine can then be dissolved in a small amount of water for examination, just as easily as in baking with gelatine, or placed directly on a nutrient agar.

It is no surprise that the cooperation between Sartorius and GELITA has been in place for such a long time, as Nesemann emphasizes: "We are the only supplier to offer these membrane filters, and are very happy to have such a reliable supplier behind us. Such a supplier is impossible to replace".

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FACT

achieve due to specific hydrolysis conditions that are different and specific for the different collagen peptides.

Myth no. 3:

That collagen peptides do not survive enzymatic digestion in the intestine is myth number three. On the contrary: compared to other proteins, collagen has a unique amino acid chain structure that appears to facilitate the transport of bioactive peptides through the intestinal wall. Their structure makes them more resistant to intestinal hydrolysis. "We estimate that about ten percent of the bioactive collagen peptides remain intact during digestion and are available to stimulate the metabolism of connective tissue cells. The remaining 90 percent are digested into amino acids that are building blocks for new connective tissue proteins," concludes Suzane Leser. Collagen has come a long way until it became perceived by consumers as one of the main sources of functional peptides. However, while many collagen solutions are offered without specific nutritional applications, GELITA offers a well-defined, substantiated portfolio of bioactive collagen peptides. The advantage for the customer: They can launch the best end products for markets such as internal beauty or joint health in a targeted way.



Suzane Leser

As Director of Nutrition and Scientific Affairs, Suzane Leser promotes the rapidly advancing science of using specific bioactive collagen peptides and their potential to significantly improve people's quality of life, health, and athletic performance. She is a nutritionist with almost 20 years of experience in the food industry. She has been contributing her wide expertise in sports nutrition and proteins to GELITA since January 2018

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Which megatrends influence our dietary habits?



Around 100 participants from 20 countries accepted GELITA's invitation to this year's GELITA Symposium at the end of October in Heidelberg. Under the motto "Active Lifestyle – Active Nutrition", visitors had the opportunity over two days to experience product developments from new perspectives, to take a look into the future – and to participate in a private training session with the professional ice hockey players of the Mannheim Adler.

Daniel Anthes from the Zukunftsinstitut ("Future Institute"), Frankfurt, Germany, opened the event with the fascinating question of which megatrends influence our eating habits. He explained that the desire for health and well-being, but also that individualization and digitization are increasingly changing the food industry. Increased mobility and the desire for convenience are opening up enormous potential for suppliers of healthy snacks. Dr. Sebastian Schwark, Managing Director of the international communications agency Edelmann, explained why companies have to address the fact that trust in institutions such as the media, politics, and also in companies is declining more and more. And how about trust in the food industry? According to Schwark, the majority of con-

sumers think that the industry is not yet prepared to feed the world's population in the future. The effects on the environment and health are also viewed critically in some cases. Transparent and credible communication is therefore an important instrument for regaining trust.

A glimpse into the future

Marius Robles, co-founder of Food By Robots/ CEO and co-founder of Reimagine Food, took the participants on a journey into the future: How will we feed ourselves in ten, twenty or thirty years? What role will digital technologies or even robots play in this? With impressive examples, Robles demonstrated that some visions of the future are already reality today. Food from 3D printers, vertical farming or steaks that are made in space from stem cells – all of this already exists. And robots will also play an increasingly important role: Robles showed examples of coffee shops and pizzerias that are operated fully automatically by robots. Which of these will actually change our everyday lives in the long run is written in the stars. But the future will in any case be exciting.

A "once in a lifetime experience" awaited the participants at the evening event in the SAP Arena, where the Bundesliga ice hockey aces of the Mannheim Adler are based. Here the guests were able to take a look behind the scenes of the modern multipurpose hall,



GELITA expands its capacities

GELITA's collagen peptides are experiencing double-digit market growth worldwide – and there is nothing to suggest that this will change in the foreseeable future. The company is preparing for future demand with a new production facility for collagen peptides near Sioux City, Iowa, USA.

More and more people want to look young for as long as possible and to stay mobile into their old age. And a growing number of people active in sports want to optimize their performance. No wonder then that the market for collagen peptides is growing enormously – and an increasing number of manufacturers are investing in products with the corresponding active ingredients. In the USA, nutricosmetic sales rose from USD 89 million in 2018 to USD 144 million this year, an increase of 61 percent. The global market for collagen peptides

amounted to \$1 billion in 2019. It is expected to grow at an average annual rate of 7.7 percent until 2028.

GELITA is optimally prepared for this growth: In July 2019, the company inaugurated its new collagen peptide plant in Sioux City with an open day. Representatives of the government, suppliers, and construction companies followed GELITA's invitation. The 2,800 square meter factory, equipped with state-of-the-art technology, increases the site's production capacity by around 30 percent. With this expansion, GELITA is securing its position as market leader. The new production plant not only promises more growth, it also gives GELITA even greater flexibility.

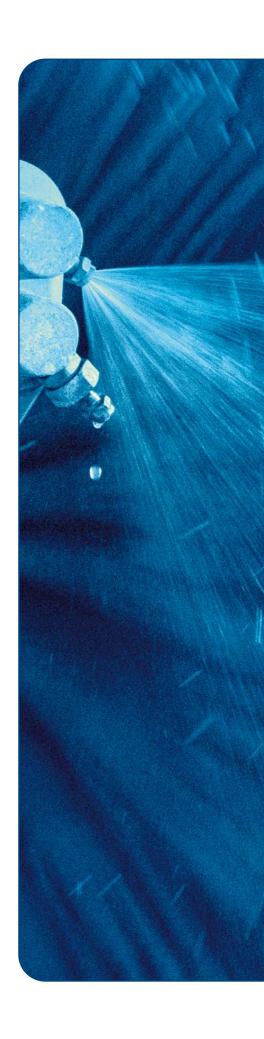
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MORE INFORMATION:

GELIT

The new GELITA production facility in Sioux City, USA.



NOVOTEC® CB800 ON TRACK FOR SUCCESS

NOVOTEC CB800 enables economical and environmentally friendly cleaning. GELITA presented its functional detergent additive at several trade fairs and congresses this year — and attracted considerable interest from trade visitors.



Team NOVOTEC Brazil: Sergio Oliveira and Daniella Serrano field questions



The German NOVOTEC team in a discussion at the SEPAWA Congress: Dr. Matthias Reihmann, Dr. Berthold Köhler and Nina Rittereiser



The US NOVOTEC team is ready to go: Alygia Tarsi and Or. Eric Yezdimer

The kick-off event was the biennial International Detergency Conference in Düsseldorf in April. Here, GELITA was represented with its own booth, and Dr. Matthias Reihmann, Head of Global Product Management Photo/ Technical at GELITA, gave a scientific presentation on the effectiveness of NOVOTEC® CB800 in cleaning products. In August, GELITA made use of the Household & Autocare Symposium in São Paulo, Brazil, to introduce this innovative product to the South American market. As at the Düsseldorf trade fair, the NOVOTEC® effect - the microscopically thin hydrophilic protective film simplifies the cleaning of various surfaces - attracted a great deal of attention. Daniella Serrano, Research & Business Discovery Manager Brazil, presented the product in a lecture and was invited to a panel discussion with other experts to discuss current trends in the industry such as natural raw materials, biodegradable products, and new packaging concepts.

The highlight was October with two consecutive events: NOVOTEC® CB800 was presented in the USA at the Cleaning Products US in Bethesda, Maryland, which was held this year under the motto "From sourcing to shelf: exploring the elements that go into creating successful Cleaning Products". Sustainability was also a major topic at this industry meeting, and Dr. Eric Yezdimer's presentation on GELITA's natural performance additive was very well received.

This NOVOTEC® offensive was concluded at the SEPAWA congress in Berlin, an important meeting point for the detergents and cleaning agents industry in Europe. For the third time in a row, GELITA presented new findings on NOVOTEC® CB800 at the scientific Homecare Conference. The German team

was supported this year by their US colleagues, and together they succeeded in initiating several global development projects with customers, dealers, and suppliers. Over the past three years, GELITA has developed from an unknown outsider in the cleaning industry to an attractive global additive manufacturer with a solid scientific background, whose expertise is also appreciated by industry leaders. Thanks to this increased level of awareness, NOVOTEC® CB800 is making its way into the global development centers of the cleaning industry, and the first finished products can already be found on supermarket shelves.

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Award winning: NOVOTEC® CB800

In 2018, GELITA won the German Innovation Award with NOVOTEC® CB800. Now the company shares the award with its customers Reinwerk Solutions and Rhein-Neckar-Verkehr (RNV). Their practical implementation and application of NOVOTEC® CB800 in cleaning their trains was a decisive factor for the award presentation



TRADE FAIRS

DATES 2020:

Visit GELITA and experience innovative products for the megatrends of tomorrow. In 2020, we will exhibit, among others, at the following fairs:

others, at the following fairs:	
ENGREDEA, Anaheim	3 – 7 March 2020
FIC, Shanghai	17 – 19 March 2020
SSE, Secaucus, NJ	21 – 22 April 2020
Vitafoods, Geneva	12 – 14 May 2020
FCE PHARMA, Sao Paulo	2 – 4 June 2020
China Customer Seminar, Shanghai	25 – 26 June 2020
IFT, Chicago	13 – 15 July 2020

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