

NutraNews

DSM Nutritional Products Customer Newsletter

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DSM acquires cosmetic active ingredient specialist Pentapharm



From left to right: Stephan Tanda (Chairman of DSM Nutritional Products); Caspar F.V. Stuerm (co-owner and CEO, Pentapharm); Marika Niedecker Hebeisen (co-owner, Pentapharm); Krijn Rietveld (Senior Vice President, New Business Development DSM Nutritional Products)

Today's Personal Care market is primarily affected and controlled by increasing consumer demands for advanced cosmetic products that meet their individual needs and requirements. Accordingly, differentiation and innovation are emerging as the future key success factors for manufacturers of cosmetic raw materials and consumer products. In this context, cosmetic active ingredients play the leading role. The DSM Nutritional Products New Business Development Personal Care department defined a list of appropriate target companies for potential acquisition, each of which holds the potential to boost innovation, which is also in line with DSM Nutritional Products' recently announced 'Aspire to Win' program.

Swiss-based Pentapharm, the top candidate on the potential acquisitions list, and DSM Nutritional Products Ltd. signed an agreement on July 4th for the purchase of 100% of the

Pentapharm's shares by DSM. Pentapharm is not only highly acknowledged among Personal Care customers for its unique and proprietary product innovations, but is also regarded as a benchmark in the positioning and introducing of new launches. The future combination of Pentapharm and DSM Nutritional Products will form the world's largest supplier with the broadest range of innovative active ingredients and related services and solutions to customers in the Personal Care industry.



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Director New Business Development Personal Care – DSM Nutritional Products

UnlimitedNutrition@DSM enhances online purchasing

Being close to our customers is crucial to helping them to succeed in their own businesses. This takes many forms, from key account management to e-Commerce. DSM Nutritional Products is launching a new platform to make

online purchasing easier than ever for our customers. Our DSM webshop will in future offer an enhanced comprehensive search function along with product and service information tailored to individual regions. Our customers in Latin America and North America already have access to a part of the functionality that our new platform will offer. In a couple of months' time, our European customers will likewise get access to this platform with enhanced functionality.

Customers will be kept up to date as to the status of UnlimitedNutrition@DSM via the 4/2007 issue of NutraNews as well as other channels.



Responsiveness - A key component of our quality promise

A strong business partnership has many components. Shared objectives, mutual trust and agreed operating procedures are certainly three of the most important. Another element, equally decisive in determining the quality of a business partnership, is responsiveness. This theme is reflected in many of the articles in our new issue of NutraNews.

As innovation leaders, we have to be responsive, reacting to the changing needs of our customers around the world. Our recent acquisition of Pentapharm is an example of this, broadening our Personal Care product portfolio while at the same time enhancing our expertise in new product launches. We also need to find new ways of responding to perennial challenges – as with, for instance, the launch of ROVIMIX® Biotin HP, which both increases milk yield and reduces lameness in dairy cattle.

Whether meeting previously unmet needs or approaching existing needs from a fresh angle, it is the quality of our responsiveness that defines our ultimate success. And that starts with something very simple: listening to you, the customer, and understanding your needs.

Sincerely,

The editorial team, nutranews.dnp@dsm.com

Events

Human Nutrition & Health

- **Food & Ingredients Asia**, Booth F1
September 26-28, Bangkok, Asia
www.fi-events.com
- **CPhi**, Hall 14, Booth F35
October 2-4, Milano, Italy
www.cphi.com
- **Food & Ingredients India**, Hall 4, Booth B15
October 3-4, Mumbai, India
www.fi-events.com
- **Fi Europe**, Hall South H, Booth F41/F45
Oct 30-Nov 1, London, UK
www.fi-events.com
- **DSM Nutritional Products and DSM Food Specialties**
- **Supply Side West**, Booth 23049
November 6-8, Las Vegas, USA
www.supplysideshow.com
- **Health and Ingredients**
November 20-22, Tokyo, Japan
www.hijapan.info

Personal Care

- **InCosmetics**, Booth B35
October 25-26, Moscow, Russia
www.in-cosmeticseasterneurope.com
- **IFSCC**
September 24-26, Amsterdam, Holland
www.ifsc2007.nl

Animal Nutrition & Health

- **XX Congreso Latinoamericano de Avicultura**
Booth 247/233/235
September 25-28, Porto Alegre, Latin America
www.avicultura2007.com.br
- **VIV India**, Booth 12.C011
November 1-3, New Delhi, India
www.viv.net

Sponsoring

- **Davidoff Swiss Indoors**, Booth Tennis Village
October 23-28, Basel, Switzerland
www.davidoffswissindoors.ch

Unlimited. **DSM**



i-flex™
...i can flex freely

QUALI-C™
QUALITY • RELIABILITY • TRACEABILITY

Human Nutrition & Health

i-flex™ – A promising product for people with joint ailments and industry partners alike

DSM Nutritional Products offers a new and very promising product for the alleviation of joint problems with the nutritional supplement i-flex™. For the first time, DSM is presenting a retail-ready end-consumer product to industry partners, together with a sophisticated marketing strategy and excellent services.

Natural Joint Health

A dietary supplement for people suffering from joint problems, i-flex™ is a 100% natural ingredient that is effective in addressing osteoarthritis related problems and actively promotes healthy joints. It is backed by thorough scientific research and has been proven in multiple clinical trials. What sets i-flex™ apart from its

competitors is its fast efficacy and sustained effect. Studies have suggested superior effectiveness, even in comparison to the current global market leader. Joint health is improved in as little as three weeks with i-flex™, which helps reduce inflammation and improves activity in day-to-day life.

Scientifically tested

Joint health is one of the leading segments within the supplements market around the world. Through aging populations and increasing urbanization, the joint health market is expected to grow substantially in the coming years. "Together with capable industry partners we will open up a huge and growing market, building one of the strongest brands in the osteoarthritis segment worldwide," says Krijn Rietveld, Senior Vice President, New Business Development. The launch of i-flex™ is being prepared in the Americas, Asia, Australia and Africa, and will begin with South Africa end of 2007.

Effective in three weeks*

DSM created a strategy for the global rollout of i-flex™ that offers a turn-key business concept to selected industry partners that includes the ready-to-launch end-consumer product together with a range of exclusive services all geared to reduce time-to-market. These so called "partner value packages" include innovative and elaborate marketing and promotional tools, a unique global branding concept as well as science and life cycle management. In brief: DSM offers its industry partners everything they need to market and successfully sell an auspicious product like i-flex™.

* Effective in three weeks for 82% of participants (Scandinavian journal of Rheumatology)

Ullrich Kranzer, ullrich.kranzer@dsm.com
Global Business Manager



QUALI-C™

Our commitment to partnerships of trust is like our brand promises: *Unlimited*

In recent months the vitamin C market has structurally changed due to a decreased supply from Chinese producers and discussions on guaranteed food and ingredients safety in general. This had a significant effect on global prices for vitamin C.

DSM Nutritional Products' QUALI-C™ (made in Dalry-Scotland) is the only remaining vitamin C produced in the Western world. With QUALI-C™, DSM Nutritional Products answers customer demands for guaranteed premium quality vitamin C to minimize risk exposure. Our commitment with QUALI-C™ is to continue our long-term partnerships by helping you to secure the value of your products and brands.

Since we are experiencing higher demand for QUALI-C™, we urge our customers to book their business for 2008 as soon as possible to guarantee supply.

For more information, please visit www.quali-c.com or contact your local DSM representative.

Martijn Adorf, martijn.adorf@dsm.com
Global Marketing Manager

DSM and Sustainability

Premier Wen Jia Bao recognizes DSM Citric Acid (Wuxi) Ltd. in China as 'Good Citizen'

On June 29, 2007, Mr. Wen Jia Bao, Premier of the State Council of the People's Republic of China visited DSM Citric Acid (Wuxi) Ltd. to acknowledge its outstanding safety, health and environmental (SHE) performance.

Mr. Wen Jia Bao was accompanied by Mr. Li Yuan Chao, Party Secretary of Jiangsu Province and Mr. Lian Bao Hua, Governor of Jiangsu Province. The officials were deeply impressed by DSM's sustainable development methods. Premier Wen Jia Bao expressed his thanks to DSM for its contribution to local society and the environment, and recognized the company as a 'good citizen'.

Ming Jiang Wei, President of DSM China and Ms. Lin Ying Zhu, General Manager of DSM Citric Acid (Wuxi) Ltd., guided the commission on a tour of the plant and in particular the company's environmental facilities. They saw the online emission monitoring system, which is an example of good cooperation in environmental protection between the company and government authorities.

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Corporate Communication Manager, DSM China

Please find more information about DSM Nutritional Products and Sustainability on www.dsmnutritionalproducts.com



From left to right: Stewart Harris, Finance Director DSM Nutritional Products and DSM China
Wen Jia Bao, Premier of State Council of P. R. China
Lin Ying Zhu, GM of DSM Citric Acid (Wuxi) Limited
Li Yuan Chao, Party Secretary of Jiangsu Province
Ming Jiang Wei, President DSM China

Challenging new European UV filter guidelines

Innovative solutions with PARSOL® UV filters



In the sun care market, the most significant development of the last 12 months has been the issuing of EU Commission guidelines on the efficacy and labeling of sunscreen products.

The recommendations primarily target UVA protection in response to the knowledge that UVA radiation is responsible for photo-aging and can lead to skin cancer.

The new system divides Sun Protection Factors (SPFs) into four distinct categories, defined in terms of their effectiveness in protecting against UVA (see chart below) and UVB. For all products, UVA protection factor should be at least one third of the SPF.

Water resistance is the second target of the recommendations. Following a transition phase in 2007/2008, all products claiming "water resistance" will have to conform with the new standards.

The new regulation certainly represents a major challenge for formulators. DSM has developed several products and concepts to address this challenge.

- To achieve the required UVA protection, formulators have access to a limited number of specific UVA filters. Looking at the high SPF products currently on the market, one can easily see the important and essential role that PARSOL® 1789 plays in achieving high UVA protection and the proper UV balance. PARSOL® 1789 is a globally approved filter with the highest level of effective UVA protection available. While photo-stability has long been a concern, this is easily addressed by the incorporation of PARSOL® 340.

- It is also interesting to take a look at synergies that enable high SPFs and high UVA protection factors to be attained at low UV filter concentrations. As presented at In-Cosmetics, a combination of 3% PARSOL® SLX, 4% PARSOL® HS and 4% PARSOL® 1789 results in an SPF in excess of 30 with a total of only 11% UV filters.

- Titanium dioxide (TiO₂) is often used to achieve very high SPF sunscreen products. PARSOL® TX, unlike the commonly used alumina coated TiO₂, has proven to be fully compatible

with the UVA filter PARSOL® 1789, thus ensuring optimal SPFs and no negative impact on UVA performance.

- Finally, the emulsifier AMPHISOL® K can be used to achieve water resistance. AMPHISOL® K has the additional benefits of being mild, efficient and exhibiting higher SPFs versus other emulsifiers with the same formulation.

DSM, with more than 20 years experience in UV protection, offers the needed ingredients and is the ideal partner for the development of concepts and formulations that meet the new EU guidelines.

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The European Commission recommendation for sun product labelling			
Category	Labeled SPF	Measured SPF	Minimum UVA protection factor (1/3 of labeled SPF)
Very high protection	50+	> 60	>16.5
	50	50 - 59.9	16.5
High protection	30	30 - 49.9	10
	25	25 - 29.9	8.5
Medium protection	20	20 - 24.9	7
	15	15 - 19.9	5
	10	10 - 14.9	3.5
Low protection	6	6 - 9.9	2

DSM at In-Cosmetics



Many of the over six thousand visitors at In-Cosmetics from April 17-19th in Paris were again drawn to the DSM stand.

As well as the presentation of the four new products – BeauActive MTP, Radiance CR, Niacinamide PC and PARSOL® Guard – visitors were eager for the latest information on UV filter trends and vitamin concepts, particularly, 'beauty from within' generated special interest. Christine Mendrok-Edinger, R&D and technical services UV absorbers, presented an impressive speech on how to cope with the latest EU guidelines on the efficacy of sunscreens.

Latest news from DSM

DSM Nutritional Products launches PARSOL® Guard - An efficient shield to protect color and light-sensitive ingredients in personal care products

The trend towards brightly colored products and sophisticated clear packaging in the personal care industry has created an increasing need to protect dyes and other UV light-sensitive ingredients in formulations.



Recently launched PARSOL® Guard successfully addresses this need and offers a unique compound with exceptional performance, outstanding safety profile and simplicity in use. PARSOL® Guard is a patented composition containing an optimized blend of PARSOL® UV filters and the natural antioxidant, Tocopherol. This combination effectively protects UV light-sensitive ingredients, such as colors and fragrances, and has an established record of safe use. PARSOL® Guard, as an all-in-one compound, offers ease of handling and a comprehensive solution for formulators.

Buhler and DSM Launch First NutriRice® Facility in China

On June 27, 2007 Buhler and DSM announced the opening of Wuxi NutriRice® Co. Ltd., a joint venture between Buhler and DSM. This facility, the first commercial scale production of its kind in the world, produces NutriRice®: nutritional enriched rice kernels to be mixed with natural rice that are produced via a patented process that protects the stability of the nutrients while at the same time ensuring high bio-availability and good taste. Wuxi NutriRice Co. Ltd. will market the enriched rice kernels (NutriRice®) to rice millers working closely with not only rice mills but also retailers to introduce the concept and benefits of NutriRice® enriched rice to consumers.



Improving nutritional status through rice fortification

The addition of essential vitamins and minerals to rice helps to reduce hidden hunger and improves the health of people whose staple diet consists mainly of rice.

For more information on NutriRice®, please visit:
<http://www.nutritionimprovement.com/nutririce.html>

ROVIMIX®
Biotin HP

Hy•D®

Animal Nutrition & Health

DSM Nutritional Products launches ROVIMIX® Biotin HP

DSM Nutritional Products is the world's leading producer and supplier of biotin. One of the water-soluble B-vitamins and also known as vitamin H, biotin is involved in protein and fatty acid

metabolism and has a positive impact on nails, hair and skin. We proudly announce the global launch of ROVIMIX® Biotin HP (High Potency), the first premium spray-dried formulation with a

minimum of 10% biotin content. ROVIMIX® Biotin HP is the only 10% cold water dispersible biotin formulation on the market and is DSM's alternative to triturates. The product features of ROVIMIX® Biotin HP enable excellent dispersion in premix, compound feeds and liquid supplements. Our new Biotin HP product maintains the quality of the classic ROVIMIX® Biotin at a price competitive with that of triturates, but with quality that is far superior.

There are many published research papers which demonstrate that supplementing dairy cows with ROVIMIX® Biotin is beneficial. As well as improving hoof horn health and reducing the risk of lameness, biotin also increases milk yield. The large number of papers on this one vitamin probably exceeds publications on any other single area of lameness reduction. Results from epidemiological studies show that a dose of 20 mg/cow/day of biotin fed continuously during all stages of production effectively reduces both lameness and foot lesions in cattle after a four month supplementation program. Moreover, it has been shown that ROVIMIX® Biotin can increase milk production by up to 2 kg/cow/day.

ROVIMIX® Biotin HP is the result of years of research and development to ensure the highest quality product form for superior performance, handling, stability, and bioavailability. Strict quality assurance procedures guarantee that all products are of consistent high quality and meet the quality standards and legal requirements for farm-assured milk production.

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Helping the poultry industry to maximize profit with Hy•D®

There is increased awareness today of the impact of intensive animal production on the well-being and the quality of poultry meat. A recently published Eurobarometer survey indicated that EU consumers are willing to make an extra effort to buy animal welfare-friendly products, and gave this factor a ranking of 8 out of 10. According to a recent statement by Markos Kyprianoum the European Commissioner for Health: "Having a new directive on welfare standards would bring forward important rules for the animal welfare of broilers..., this resulting not only in better animal welfare, but also contributing to improving the health of the birds and the quality of their meat."

One of the alternatives that DSM Nutritional Products offers to the industry is Hy•D®, or 25-hydroxy-cholecalciferol, which is the first metabolite of vitamin D3 in the body. This vitamin is required for growth, health and bone development in poultry. Feeding birds with Hy•D® has been demonstrated to enhance the functions that vitamin D3 metabolites serve within the body. The efficiency of absorption (from day 1), actively ensures adequate bone formation, leads to better health and production, lower numbers of condemnations in the slaughterhouse and to an increased breast meat yield.

Extensive experiences, both at the practical and experimental levels, has shown that Hy•D® effectively improves bone

(improving welfare) and meat (improving economic results) quality, thus resulting in greater consumer acceptance. Results from the University of Alberta (Korver et al., 2006) have shown that adding Hy•D® to the diet of fast-growing broilers resulted in greater femur breaking strength, femur density and area at various ages throughout the broiler production cycle. It also increased consumer acceptance of thigh meat, probably due to the better mineralization of the bones, reducing the incidence of black discoloration of the thigh meat next to the femur (black bone syndrome). Practical results in USA and Europe corroborate these findings. Customers from many countries throughout the world have benefited from the use of Hy•D® in their broiler and turkey production. They observed a decrease in the percentage of downgrades and second-class meat; additionally, they have also reported greater homogeneity of the flocks and a consistent increase in meat yield, including



breasts, thighs, and wings. The improvements observed will vary according to flock, ranging from 0.5 to 2-3% in both decreased condemnations and increased yield, generating a very positive ROI. Thus, Hy•D® is contributing to the boosting of profitability in the poultry meat industry by facilitating the production of more first class meat per bird.

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Colophon

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Unlimited. **DSM**