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Editor-in-chief:
Anders Hager
Coordinator, text, lay-out:
Dorthe Andersson

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Evonik-Degussa expands its cooperation with Alsiano

Alsiano new distributor of Evonik Degussa AEROSIL® products in Sweden for pharmaceutical and healthcare

By Dorthe Andersson, Marketing, Alsiano A/S

We are pleased to announce that Evonik Degussa has appointed Alsiano as their exclusive distributor in Sweden for their AEROSIL® line of free flowing agents to the pharmaceutical and healthcare industries.

Alsiano has represented Evonik Degussa on the Danish market for many years, and in future Alsiano will also be in charge of introducing the AEROSIL® products to the pharmaceutical and healthcare industries in Sweden.

Glen Marston, sales manager for Evonik Degussa's AEROSIL® line, has the following comments to this change of organisation: "In our experience, working with the pharmaceutical industry requires, among other things, long term commitment, technical competence and a thorough understanding of the development process in the industry. By appointing Alsiano in Sweden, we strongly believe that Evonik-Degussa shall be able to meet these demands."

Anders Hager, sales manager of Alsiano Pharma, is pleased with Evonik Degussa's decision and states, "We are very very proud that Evonik Degussa has chosen us to represent them in Sweden and consider this

this decision a token of Evonik Degussa's satisfaction with the work we have performed so far within the Danish pharma industry. For Alsiano, the addition of Evonik-Degussa's AEROSIL® line of free flowing agents will make our product portfolio vis-à-vis our Swedish customers more complete and thus more attractive".

The AEROSIL® product portfolio consists of hydrophobic and hydrophilic fumed silica, mixed oxides, metal oxides and dispersions. For pharmaceutical manufactures, the AEROSIL® product line also includes hydrophilic and hydrophilic colloidal silica pharmaceutical grades. Evonik-Degussa offers technical service laboratories, technical support, highly detailed specialist literature, and consistency of quality and secure supply of products.

Evonik Degussa's AEROSIL® products are stored at Alsiano's warehouse guaranteeing a prompt delivery service.



Healthy South African plant extracts from Afriplex

Alsiano has entered into co-operation with Afriplex, South African producer of plant extracts, flavours and herbal teas from Africa's indigenous plants. Their wide selection of products includes, among others, fruit pulp from the "superfruit" Baobab and extracts from Devil's Claw, Roiboos and Kigelia – all products which can be used in a broad range of applications such as health supplements, nutritional bars, skin care products and health drinks

By Annette Strarup, Area Sales Manager, Alsiano A/S

The increasing demand for new superfruits, exotic extracts and new antioxidants has initiated Alsiano's decision to offer products from Afriplex. Afriplex is an innovative company situated in Paarl, Cape Town in South Africa. Afriplex is cost-effective, and at the same time it has an inherent responsibility for the environment. Below is a brief presentation of a selection of the interesting products from Afriplex.

Baobab fruit pulp: Pectin & amino acids in natural form

Numerous studies on the benefits of Baobab have been conducted the last six years at universities and laboratories. Baobab is a "superfruit" and is very close to receive EU Novel Food Approval, which has only been granted to very few novel foods and exotic fruits introduced into the EU due to the high cost of getting approval for food.

Baobab is recommended for a broad range of applications including skin supplements (beauty from within), intestine health supplements, energy drinks (energy booster for athletics) and for cereal bars, cookies and yoghurts due to its ability to improve intestinal health.

Baobab is rich in amino acids (see table), it has high concentrations of



bioflavonoids, and a high concentration of linolenic acid (omega 3, 6 and 9). Further, it is rich in pectin fibre and has prebiotic-like activity in-vitro. A recently published analysis has revealed the level to range between 23.4 g and 33.8 g pectin/100 g of Baobab fruit pulp.

A nutritional analysis of Baobab fruit pulp has shown that the fruit is an excellent source of calcium and vitamin C. In fact, the vitamin C content is three times higher than that of oranges (300 mg/g). The antioxidant power of Baobab pulp is approx. four times that of kiwi and apple pulp.

Devil's Claw – Cinnamic esters for bone & joint health

Traditionally, Devil's Claw has been used for thousands of years in South

Africa for fever, rheumatoid arthritis and kidney problems. Today, the primary use of Devil's Claw is for reducing pain and swelling of Arthritis patients. Joints are situated where two bones meet, such as elbow and knee. Over time, the joint can become severely damaged.

The main component in Devil's Claw is Harpagoside which is a cinnamic ester. Several clinical studies show that Devil's Claw can relieve pain due to its ability to reduce inflammation. Two studies have been published in *Joint Bone Spine*

and *European Journal of Anaesthesiology* - both studies were placebo-controlled and included 122 humans and 197 humans respectively.

Devil's Claw can be combined with other anti-inflammatory ingredients such as rosehip or ginger from Vidya Herbs. Please contact Alsiano for further information.

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Baobab amino acid content

Proline	2.35 g
Histidine	2.71 g
Leucine	8.41 mg
Arginine	6.04 g
Isoleucine	10.70 g
Methionine	4.92 g
Cystine	11.23 g
Phenylalanine	4.11 g
Glutamic acid	4.02 g
Valine	1.64 g
Tyrosine	4.21 g
Tryptophane	1.49 g
Theronine	2.96 g

per 100 g



Examples of healthy drinks with Rooibos

Rooibos Extract – Powerful anti-oxidant & skin nutrient for blemish control

Rooibos extract - also known as South African red tea extract - contains a high level of different anti-oxidants (including Superoxide Dismutase) and a high level of asphilitin, which is known for its anti-allergic properties. The plant is traditionally used for skin conditions to treat dry skin, allergic skin, irritated skin and acne. The research within Rooibos extract is growing and several research teams including universities in Japan and South Africa are at present conducting research about the health promoting properties of the ingredient.

The extract is also available in an organic version. The latest variant is an unfermented version, Novel-T Green Rooibos extract, with a higher amount of asphilitin. Together with Rooibos flavour it is extremely popular in the US and Japan within the healthy beverage sector for products like ice teas, fruit juices, carbonated soft drinks and flavoured mineral water.

For blemish control supplements, roiboos extract is recommended together with dandelion extract, silymarin extract, nettle extract and burdock extract. For topical applications, Rooibos extract is recommended together with Sepicontrol A5 (vectorized amino acid and cinnamon extract) from Seppic and/or Kigelia extract (read more about Kigelia below).

Kigelia fruit extract – Sun care

Kigelia extract is produced from the seed pod of the "Sausage tree" or the Kigelia africana tree. It is traditionally used for topical applications and is used to ensure a clear, blemish-free complexion, for dry skin and skin with fungal infection and also in antiaging supplements. Scientific literature confirms the validity of many of the traditional uses due to the presence of numerous secondary metabolites including iridoids, flavonoids, fatty acids and sterols. The sterols (phytosterols) are recognized for their skin firming abilities and inflammatory properties against eczema and other skin conditions. They are also used for allergy relief.

Recent studies show proven efficacy in treating sun induced skin sores, and research is currently taking place at Freiberg University. Kigelia extract is recommended together with melon SOD extract (Extramel C from Seppic) for sun protection. For anti-age skin creams, collagen biosynthesis Kigelia extract is recommended together with Beta (1.3)-glycan and arginine (please contact Alsiano for further information).

Afriplex competencies

- **R&D focused** – Afriplex has established partnerships with leading universities to facilitate collaborative research and development of products derived from Southern African plants. Further, they undertake research projects with a number of highly regarded institutions.

- **Creative centre (application lab)**

– In Paarl, South Africa, the AFF Creative Centre is situated with focus on product innovation and customer service. Afriplex has fully equipped application labs for a wide range of food and beverage applications (e.g. beverages, smoothies, breakfast cereals etc.).

- **Experimental farm** – Afriplex has invested in the propagation and cloning of different plant species and conduct tests in a fully-automated greenhouse.

- **Product development** – Afriplex has expertise in tailoring products by utilizing engineering and separation technology.

Name of extract	Botanical name	Active
Baobab Pulp	Adonsonia digitata	Pectin Amino acids Polyphenols Vitamin C
Devil's Claw	Harpaghytum procumbens	Harpagoside
Rooibos / Green Rooibos	Aspalathus linearis	Asphilitin
Kigelia	Kigelia africana	Steroidal saponins



Article 323

SEPINEO™ - improves and simplifies formulation of topical emulsions and gels

Seppic launches a new range of excipients dedicated to topical drug formulations



By Michel Malandain, Excipients Manager & Aude Puget, Marketing & Development, Seppic

In semi-liquid dosage forms, gels and emulsions represent two of the most widely used topical drug formulations. Traditional emulsions used for topical applications can be a headache when you build your surfactant system using a lipophilic plus a hydrophilic surfactant, calculate the HLB of the system and then add a thickener to obtain consistency. You increase your development step and thereby the cost.

SEPINEO™

To improve and simplify formulation, SEPPIC proposes SEPINEO™, a new range of excipients in pharmaceutical grade. SEPINEO™ range means excipients dedicated to topical drug formulations with SEPPIC pharmaceutical regulatory support. This range includes, for now, a non ionic self-emulsifier, SEPINEO™ SE 68, and a polymer SEPINEO™ P 600.

SEPINEO™ SE 68 for emulsions

The SEPINEO™ SE 68 allows the manufacture of consistent and stable O/W emulsions and avoids the above

constraints. It enables to formulate

- emulsion without thickening agent
- anhydrous emulsion; for water sensitive actives
- depending on the nature of the oil, O/W stable emulsion with high oil content (40%: any kind of oil / 60% with some specific oil)
- emulsion with high solvent content (30% max ethanol in standard emulsion)

Emulsions based on SEPINEO™ SE 68 show an

exceptional stability and viscosity stabilizes rapidly. These emulsions have pronounced rheo-fluidity and moderate thixotropic nature, hence favouring a uniform and homogenous spreading of the active substances at the skin surface. SEPINEO™ SE 68 is able to promote liquid crystals, regardless of the nature of the fatty phase. This property enables very stable emulsion, preventing oil droplet coalescence.

SEPINEO™ SE 68 standard dose of use is 5%

SEPINEO™ P 600 for gels

Formulating a gel can also be a headache when the process requires high shear mixing and a neutralisation step - it can be hard to avoid a sticky texture or a bad behaviour. SEPPIC proposes a solution to avoid all these drawbacks and permit quick developments.

SEPINEO™ P 600 is a very-easy-to-handle polymer in liquid form that gives the opportunity to accelerate formulation of pharmaceutical gels. It

enables the formulation of gel or gel-cream at room temperature whether it includes high shear mixing or not. SEPINEO™ P 600 is able to thicken formulations over a wide pH range (2 to 12) with no re-hydration and no neutralisation step. Its compatibility with solvents like ethanol, propylene glycol, etc. is an advantage that makes it possible to elaborate formulas containing actives with poor solubility (hydro-alcoholic gels including up to 60% ethanol) or water sensitive actives (anhydrous formulations).

SEPINEO™ P 600 is also able to emulsify and stabilize many oily phases without:

- addition of conventional emulsifier
- HLB calculation
- neutralization step

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About Seppic

SEPPIC is a supplier of ingredients in different business areas (industrial, pharmaceutical and health care, cosmetics) and a subsidiary of AIR LIQUIDE, an international group specialized in industrial and medical gases.

SEPPIC offers science and services with highly technical product ranges.

SEPPIC, well known in the pharmaceutical area for oral forms, does also provide excipients for topical forms.

Its expert team enables SEPPIC to develop or recommend specific formulations accurately tailored to their customers' requirements throughout the world.

CardiaBeat™ - a fresh approach to Omega-3 & plant Sterol Esters

Omega-3 and plant Sterol Esters enjoy global market awareness during the recent years. Enzymotec offers nutraceutical companies an opportunity to leverage this ingredient trend by offering additional health benefits with CardiaBeat™ - an innovative and unique Sterol/Omega-3 based matrix

By Michal Haim-Bravman, Marketing Manager, Enzymotec



Omega-3 fatty acids and plant Sterol Esters have long been one of the strongest market leaders in terms of functional, science-based ingredients, capable of addressing the specific health concern of cardiovascular diseases (CVD). In Scandinavia, the consumption of these ingredients both in the food and dietary supplements markets in Scandinavia is one of the highest in the world. Although popular, one can not ignore some of the weaknesses of these popular ingredients. Omega-3 fatty acids can have intrinsic taste and odor limitations and they do also have a certain negative impact on HDL and even LDL levels. The conventional plant Sterol Esters inhibit the absorption of fat soluble vitamins (beta-carotene), and have not shown to have any beneficial impact on circulating triglycerides concentrations. As these ingredients commoditize, and margins erode, it becomes harder for players to take a dominant position and to re-invest resources in science and thus to enable true differentiation.

What is CardiaBeat™?

Is there a way to take these well recognized ingredients into the next level

of efficacy? Enzymotec, the Israeli biotech technology company, has launched CardiaBeat™ - an innovative and unique Sterol/Omega-3 based matrix with additional health benefits. CardiaBeat™ is an innovative, patent protected unique matrix which delivers conjugated EPA/DHA Omega-3 fatty acids and plant Sterol. This conjugation enables lowering the LDL-cholesterol and triglycerides levels better than fish oil. In addition, it ensures the optimal vitamin absorption, which is a common weakness of plant sterols. Thus, it offers total lipid control for CVD patients or individuals at high CVD risk. Furthermore, Cardia-Beat™ is a simple and compact formula, which enables significant and efficient dosage of Omega-3 and plant Sterols in a relatively smaller dosage form. Lastly, the ingredient addresses similar risk factors as lipid-lowering drugs but through a different mechanism. Thus, it can, when consumed in combination with statins, achieve greater effect or make the reduction of daily drug consumption possible.

The science behind CardiaBeat™

CVD remains one of the most common causes of mortality and morbidity in developed countries. Lipid management, as an important component of vascular risk factor control, plays a pivotal role in cardiovascular risk factor management in all age groups.

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The SEPINEO™ P 600 emulsifies formulations with a fatty phase content up to 35-40% depending on the nature of the oil. This gives stable formulations with a perfectly uniform ap-

pearance, very pleasant to the touch and with a perfect spread on the skin owing to its rheological profile. SEPINEO™ P 600, thanks to its non-thixotropic nature, promotes formulations that are not disturbed by shearing procedures. The formula will show

an immediate recovery of the elastic structure (and viscosity) after shear stress.

SEPINEO™ P 600 recommended dose of use is up to 5%

Article 324

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