Innovative raw materials for the cosmetic industry
Overview

- Dr. Straetmans - Company profile
  - What do we offer our customers and manufacturers?
  - What do we need from our suppliers?

- The cosmetic market

- Innovation of new cosmetic raw materials

- Summary
Dr. Straetmans GmbH is a privately owned company founded in 1984 by Dr. Udo Straetmans (Chemist, Ph.D.) and located in Hamburg, Germany.

We are the founder and market leader in alternative preservation. Dermosoft® has been the first alternative preservation concept available to the cosmetic industry.
Our Business:

- Development and Commercialisation of cosmetic raw materials
  - Raw materials from conventional and renewable sources
  - Our raw materials are produced by manufacturing partners
**Manufacturer of raw materials**

- Manufacturing know-how
- Manufacturing capacities
- Manufacturing regulatory know-how

**Manufacturer of finished cosmetic products**

- Cosmetic formulation know-how
- Cosmetic marketing know-how
- Cosmetic regulatory know-how
What does Dr. Straetmans offer to its customers?

- an interesting portfolio of high quality cosmetic raw materials, no commodities
- profound technical know-how to support the realization of modern cosmetic concepts
- reliable and service-oriented administration of customer demands
- long-term supply security due to early reaction on regulatory challenges
Dr. Straetmans – Our business approach

- Manufacturer of raw materials
  - Manufacturing know-how
  - Manufacturing capacities
  - Manufacturing regulatory know-how

- Manufacturer of finished cosmetic products
  - Cosmetic formulation know-how
  - Cosmetic marketing know-how
  - Cosmetic regulatory know-how
What does Dr. Straetmans offer to its suppliers?

<table>
<thead>
<tr>
<th>Manufacturer of raw materials</th>
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<tbody>
<tr>
<td>- Manufacturing know-how</td>
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<tr>
<td>- Manufacturing capacities</td>
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<td>- Manufacturing regulatory know-how</td>
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- Realization of the cosmetic potential of the raw materials
- Creation on interesting new raw materials based on suppliers technologies
- Incorporation of the supplier’s raw materials into modern cosmetic concepts
- Accomplishment of the specific regulatory demands for the cosmetic industry
- Exploration of the cosmetic potential of the raw materials through an excellent market access (worldwide distribution network)
What does Dr. Straetmans need from its suppliers?

- Manufacturer of raw materials
  - Manufacturing know-how
  - Manufacturing capacities
  - Manufacturing regulatory know-how

- Established know-how for high quality raw materials
- Sufficient production capacities
- Commitment to support Dr. Straetmans efforts in the cosmetic industry
  - Compliance with the specific analytical demands for cosmetic raw materials
  - Exchange of available technical, regulatory and toxicological information
  - Openess to manufacture specific cosmetic grades

- Product synthesis know-how
- Technical product know-how
- Cosmetic formulation know-how
- Regulatory know-how
Dr. Straetmans – Our business approach

The organization around

- Microbiological laboratories
  - Microbiological Tests
- Synthesis Laboratory
- Application Laboratory
- Regulatory Services
- Customer Services
- Marketing
- Sales
- Logistics Partner
- Warehousing
- Contract Manufacturer
- Blending
- Patent
- Intellectual Properties

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The cosmetic market

European Market Revenue (2011) (Source: Statista)

<table>
<thead>
<tr>
<th>Industry</th>
<th>Revenue (2011)</th>
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</thead>
<tbody>
<tr>
<td>Food/Beverage Industry</td>
<td>ca. USD 1285 billion</td>
</tr>
<tr>
<td>Pharmaceutical Industry</td>
<td>ca. USD 204 billion</td>
</tr>
<tr>
<td>Cosmetic Industry</td>
<td>ca. USD 90 billion</td>
</tr>
</tbody>
</table>

- heavily regulated
- high R&D costs

- less regulated than Pharma
- Less price-driven than Food
- lower R&D costs
- highly price-driven market
The cosmetic market

Marketing-driven Industry

- shaped by many trends
- “Natural" is one of the most important trends
Innovation of new raw materials in cosmetics

New natural cosmetic raw materials

- Animal
- Plant

Building blocks

Cosmetic Function

- Polar head
- Unpolar chain

e.g. Wetting agent

=> Capacity to lower the surface tension of a liquid and thus to increase its ability to spread across or penetrate into the skin.
Wetting agents interact with cellular wall of microbes
Wetting agent destabilize microbial cell wall.
Building blocks from biomass feedstocks

Vegetable Oil

Hydrolysis

Glycerin + Caprylic acid

Condensation

Glyceryl Caprylate

dermosoft® GMCY
Innovation of new raw materials in cosmetics

New natural cosmetic raw materials

Building blocks

Cosmetic Function

e.g. Emulsifier

Oil phase

Water phase

Polar head

Unpolar chain

animal

plant
Building blocks from biomass feedstocks

Vegetable Oil

Polar head

Unpolar chain

\[
\text{Glycerin} + \text{Stearic acid} \rightarrow \text{Glyceryl Stearate}
\]

\text{dermorganics® GMS SE}

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Innovation of new raw materials in cosmetics

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Building blocks

Cosmetic Function

- Polar head
- Unpolar chain

=> Capacity to improve the sensorial properties of skin care formulations

**Light oils** which enter the skin, fill in gaps in the surface skin, assist in skin repair.
Building blocks from biomass feedstocks

Vegetable Oil

Hydrolysis

Polar head

Unpolar chain

Glycerin + Stearic acid → Condensation

Glycercyl Stearate

Fermentation

Succinic acid

starch

Glycercyl Stearate Succinate

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Figure 3 – Analogous Model of a Biobased Product Flow-chart for Biomass Feedstocks


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Innovation in cosmetics

New natural cosmetic raw materials

Natural cosmetic raw material alternative

Alternative source + manufacturing process

e.g. Anisic acid (multifunctional)

Cosmetic Function

e.g. Emollient

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Natural cosmetic raw material alternative

**dernosoft® 688**

**dernosoft® 688 eco**

patented process since 2007

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Summary

• Dr. Straetmans is always seeking for new partners in manufacturing

• Consumers demand for “greener” cosmetic products (Source + Processes)

• Personal Care:
  • Ideal Market for innovative new raw materials
    • Low volumes + Wider price ranges

• Large potential of new building blocks from biomass