Palm Derivatives in the Home and Personal Care Value Chain

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RSPO Achievements & Timescale

- **Nov 22nd 2007** final approval of P&C by GA
- **Aug 2008** approval of market mechanisms from IP to B&C
- **Aug 21 2008** 1st P&C certification
- **Apr 8th 2004** inauguration date of RSPO
- **Aug 25th 2011** first 1mio ha certified
- **Jul 20th 2011** Ordinary Membership crosses 500 mark
- **Nov 4th 2004** Cognis’ official membership entry
- **2004**
- **2005**
- **2006**
- **2007**
- **2008** Cognis addresses HPC Derivative question in RSPO
- **2009** TWG Palm Oil Coalition register need to address derivative needs
- **2010**
- **2011** SC T&T takes over lead to provide guidance
Content

• A view on oils and fats – supply and application
• Lauric oils (Coconut/Palmkernel) and their specifics as a raw material for the HPC market
• The complex value chain for HPC products
• Comments on the transition from natural to sustainable
Bear With Me for 10 Minutes!

You think this is a tough job? You go and try to talk about derivatives in the HPC market!
Laurics are a niche - in supply...

<table>
<thead>
<tr>
<th>Supply in volume in 2010 (mln mt)</th>
<th>Applications in volume in 2010 (mln mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Others</td>
<td>Edible use 126,6 mln mt</td>
</tr>
<tr>
<td>Animal Fats</td>
<td>Animal feeding 12,2 mln mt</td>
</tr>
<tr>
<td>Lauric Oils</td>
<td>Oleo chemicals / Soap 17,3 mln mt</td>
</tr>
<tr>
<td>Sunflower Oil</td>
<td>Biofuel / Bioenergy 16,0 mln mt</td>
</tr>
<tr>
<td>Rapeseed Oil</td>
<td></td>
</tr>
<tr>
<td>Palm Oil</td>
<td></td>
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<tr>
<td>Soybean Oil</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total 172,1 mln mt</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>16,5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Others</td>
<td>24,5</td>
</tr>
<tr>
<td>Animal Fats</td>
<td>8,9</td>
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<tr>
<td>Lauric Oils</td>
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<tr>
<td>Sunflower Oil</td>
<td>23,8</td>
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<tr>
<td>Rapeseed Oil</td>
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</tr>
<tr>
<td>Palm Oil</td>
<td>45,9</td>
</tr>
<tr>
<td>Soybean Oil</td>
<td>40,2</td>
</tr>
</tbody>
</table>

Source: Oilworld, BASF
Laurics are a niche – also in demand

**World Consumption 2010**
**Total 8858 Kmt**

- **Non Core Edible**
  - Demand
  - 3558 Kmt

- **FAC Lauric Acid**
  - Demand
  - 2000 Kmt

- **High Value Edible**
  - Demand
  - 1500 Kmt

- **FOH Lauric Alcohol**
  - Demand
  - 1800 Kmt

Source: Oilworld, BASF
Laurics have a specific fatty acid composition – fits well for the performance requirements.

Max content of fatty acid in % (Source: FOSFA)
Oleochemical Derivatives – The “Astley Spider”

- **Natural Oil & Fractions**
  - (Palm Oil, Palm Stearin, PKO, PFAD)
  - GLYCERINE
  - GLYCEROL ESTERS (GMO, GMS etc)
  - METHYL ESTER SULPHONATES (MES)

- **In-scope Products**
  - Quaternary Surfactants (Fabric Conditioners)
  - Fatty Acids
  - Methylesters
  - Esters (IPP, IPM, EGDS, etc)
  - Fatty Isethionates (SCI)
  - Fatty Ammonium Betaines (CAPB)
  - Soap
  - Amine Oxides
  - Quaternary Surfactants (CTAC)

- **Primary Focus**
  - Ether Sulphates (SLES, ALES)
  - Alkyl Alcohol Ethoxylates (AEO, NI)
  - Alcoholic Sulphates (SLS)

- **Out-of-scope**
  - Quaternary Surfactants (CTAC)
  - Primary Focus
  - In-scope

Source: Unilever
Summary

- The value chain is complex and not constant, but volatile.
- This complicates the transition process to physical.
- SC T&T Subgroup looked for a transitory tool kit.
the journey to physical transition has started
Thank you for your attention...

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