Specialty Materials overview
Segment structure

**Specialty Materials**
Sales: €4,843 m  
Adj. EBITDA / margin: €853 m / 17.6%\(^1\)

<table>
<thead>
<tr>
<th>Business Units</th>
<th>Sales: €1,774 m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Polymers</td>
<td></td>
</tr>
<tr>
<td>Acrylic Polymers (~40%)</td>
<td></td>
</tr>
<tr>
<td>Acrylic Monomers (~35%)</td>
<td></td>
</tr>
<tr>
<td>High Performance Polymers (~25%)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Business Lines</th>
<th>Sales: €3,069 m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Intermediates</td>
<td></td>
</tr>
<tr>
<td>Performance Intermediates (~70%)</td>
<td></td>
</tr>
<tr>
<td>Active Oxygens (~10%)</td>
<td></td>
</tr>
<tr>
<td>Functional Solutions (~10%)</td>
<td></td>
</tr>
<tr>
<td>Agrochemicals &amp; Polymer Additives (~10%)</td>
<td></td>
</tr>
</tbody>
</table>

Data as of Fiscal Year End 2012; in brackets % of sales of Business Unit in 2012
\(^1\)Adjusted for IAS 19 restatement

3 September, 2013 | Evonik Capital Markets Day 2013 | Specialty Materials
Specialty Materials overview
Demand driven by globalization megatrend

Megatrend and impact

<table>
<thead>
<tr>
<th>End market growth¹</th>
<th>Resource Efficiency</th>
<th>Mobility</th>
<th>Urbanization</th>
<th>Growing middle class in emerging markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional materials substitution → PMMA and composites for lightweight cars</td>
<td>Demand for durable automotive components → PA12 for brake and fuel lines</td>
<td>Plasticizers for soft PVC, wall covers, floorings, etc. → INA/DINP</td>
<td>Growing need for sustainability and environmental solutions → H₂O₂ / HPPO</td>
<td></td>
</tr>
<tr>
<td>e.g. auto plastics: 5% (global) 10% (China)</td>
<td>e.g. total auto: 4% (global) 6% (China)</td>
<td>e.g. PVC: 5% (global) 7% (China)</td>
<td>e.g. PU foam: 4% (global) 6% (China)</td>
<td></td>
</tr>
</tbody>
</table>

¹ 2012-2020E; as per Frost & Sullivan (2013)
BU Performance Polymers
Focused on engineering and customized high-end polymers

Polymer markets segmentation and Evonik market positions

Performance driven
• higher growth
• higher margins

High performance polymers

PEK

#2

PEEK

#1

PI

PA12

PVDF

PA11

Engineering polymers

POM

PA6

#1/#2

PMMA

PC

PPC

Commodity polymers

PP

PVC

PE

PS

PPE

Price driven
• higher volumes
• lower margins

3 September, 2013 | Evonik Capital Markets Day 2013 | Specialty Materials
Business spotlight: Acrylic Monomers & Polymers
Vertical integration and innovative growth applications combined with leading cost position

Methacrylate platform

- Leading process technology and innovation, e.g. Aveneer®: new, highly efficient process technology for MMA production
- Global production set-up
- Competitive cost position
- Clear benefits from vertical integration
- Flexibility in downstream use

Feedstock

Acetone-based production
- Acetone
- Hydrogen cyanide

MTBE-based production
- MTBE
- Methanol

Monomers (MMA)

Polymers (PMMA) ~50%

Applications

Other captive use

External sale

Lighting systems

Lightweight construction

1 E.g. Coatings, Pharma Polymers, Oil Additives

3 September, 2013 | Evonik Capital Markets Day 2013 | Specialty Materials
### Business spotlight: Acrylic Monomers & Polymers

Potential in new growth applications for PMMA

<table>
<thead>
<tr>
<th>New growth fields</th>
<th>Market size 2012</th>
<th>Market potential 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighting systems</td>
<td>10 kt p.a.</td>
<td>150 kt p.a.</td>
</tr>
<tr>
<td>Light construction</td>
<td>5 kt p.a.</td>
<td>100 kt p.a.</td>
</tr>
</tbody>
</table>

LED lighting, mainly for ceiling lighting solutions (replacing neon lights)

MMA-derivatives for lightweight design, e.g. Plexiglas® for automotive glazing

**Market size and potential (kt / a)**

- **New growth fields**
- **Base**

CAGR >30%

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>New growth fields</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Business spotlight: PA12 (High Perf. Polymers)
Broad range of growth applications

**PA11/12 markets by application (in kt / a)**

<table>
<thead>
<tr>
<th>Application</th>
<th>2013</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumer goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automotive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CAGR +8%**

**Market characteristics**

- GDP++ growth profile
- Growth drivers: Solar and Oil & Gas industries, Mobility trend
- 1-2 world scale plants needed to meet expected future demand
- Significant entry barriers
  - high technological hurdles
  - access to raw materials

**Application examples & product characteristics**

**Solar**

PA12 for back sheets of solar panels

Key characteristics

- heat-resistance
- scratch-resistance
- corrosion-resistance

**Consumer Goods**

PA12 for dishwasher basket coatings

Key characteristics

- scratch-resistance
- anti-microbial

**Oil & Gas**

PA12 for flexible pipes (off-shore)

Key characteristics

- high strength per weight
- corrosion-resistance
- scratch-resistance
Business spotlight: PA12 (High Perf. Polymers)  
Market position and key success factors

<table>
<thead>
<tr>
<th>Market shares in PA 11/12 markets</th>
<th>Evonik’s key success factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>UBE</td>
<td>• High application innovation focus</td>
</tr>
<tr>
<td>EMS</td>
<td>- fast and customized solution development for single customers / applications</td>
</tr>
<tr>
<td>Arkema</td>
<td>- high level of application and system solutions know-how</td>
</tr>
<tr>
<td>#1</td>
<td>- excellent technical service and reputation</td>
</tr>
<tr>
<td></td>
<td>• Competitive production process</td>
</tr>
<tr>
<td></td>
<td>- only integrated producer / advanced process technology</td>
</tr>
<tr>
<td></td>
<td>- Pilot installations for new processes</td>
</tr>
</tbody>
</table>

Company estimates  
3 September, 2013 | Evonik Capital Markets Day 2013 | Specialty Materials
Business spotlight: PA12 (High Perf. Polymers)
Leading positioning secured by strategic capacity increasing projects

**Marl**
- Rebuilding of the CDT plant in Marl (Germany) top priority in 2012
  - Record time of only 6 month
  - Nearly all clients are already back
    (strong client relationship and consequent crisis communication, mission-critical product, no true substitution)
- Successful debottlenecking of PA12 capacity

**Singapore**
- New PA12 plant in Singapore
  - Planned capacity expansion for polyamide 12 in Singapore
  - World scale production capacity for fast growing Asian markets
  - Increased supply reliability after incident in Marl in 2012

**Bio-Polymers**
- Continued development of bio-based materials
  - Bio-laurinlactam (BioLL): Biological production of monomer for biologically based polyamide 12 for the first time; pilot plant in Marl in operation
  - R&D for bio-based polymers (e.g. VESTAMID® Terra)
Business spotlight: $H_2O_2$ (Active Oxygens)
HPPO process creates new market for hydrogen peroxide

1. Traditional markets
   - Traditional $H_2O_2$ end markets: Pulp & Paper and Textile (bleaching) with sustainable moderate growth (GDP)

2. HPPO process
   - Technology to manufacture PO, a PU-precursor, on basis of $H_2O_2$
     - Substantial cost advantages vis-à-vis alternative processes
     - More environmentally friendly; only water as side stream
     - Own technology licensed by Evonik/Uhde (license fee); Evonik as only grantor of a licence for HPPO
   - Evonik/Uhde and Dow/BASF only players with proprietary technology
   - Cost advantage of new $H_2O_2$ plants will also allow to capture growth in other $H_2O_2$ applications besides HPPO

Expected market growth for hydrogen peroxide
- HPPO: 4.0 Mio. t/a in 2010, 4.5 Mio. t/a in 2015
- Traditional: 3.7 Mio. t/a in 2010, 5.6 Mio. t/a in 2015

Proven large scale production with HPPO process in Ulsan, Korea; world scale plant in China under construction

Company estimates
3 September, 2013 | Evonik Capital Markets Day 2013 | Specialty Materials
Business spotlight: $\text{H}_2\text{O}_2$ (Active Oxygens)

HPPO enables $\text{H}_2\text{O}_2$ growth esp. in Asia

**HPPO process**

- **Propylene**
- **$\text{H}_2\text{O}_2$**
- **Propylene Oxide**
- **Polyether Polyols**
- **Polyurethane**

**PO demand in Asia** (in Mio. t/a)$^1$

<table>
<thead>
<tr>
<th>Year</th>
<th>Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>3.4</td>
</tr>
<tr>
<td>2020</td>
<td>5.3</td>
</tr>
</tbody>
</table>

*CAGR +6%*

**PU foam demand in Asia** (in Mio. t/a)$^2$

<table>
<thead>
<tr>
<th>Year</th>
<th>Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>5.0</td>
</tr>
<tr>
<td>2020</td>
<td>7.0</td>
</tr>
</tbody>
</table>

*CAGR +4%*

- PO demand driven by global growth of polyurethane, especially Asia
- Gap expected between expected demand and supply

Selected applications for PU foam:
- Insulation (appliances, construction)
- Automotive
- Furniture and bedding

---

$^1$ Company estimates  
$^2$ As per Frost & Sullivan (2013)

3 September, 2013 | Evonik Capital Markets Day 2013 | Specialty Materials
**Business spotlight: \( \text{H}_2\text{O}_2 \) (Active Oxygens)**  
New world scale plant under construction in China

### HPPO and \( \text{H}_2\text{O}_2 \) time line

<table>
<thead>
<tr>
<th>From 2000</th>
<th>From 2008</th>
<th>2013 / 2014</th>
<th>2017 / 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Development of HPPO process together with ThyssenKrupp Uhde</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- First HPPO plant in South Korea worldwide</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Capacity increased subsequently; ( \text{H}_2\text{O}_2 ) production matched with &gt;100 kt/a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Leverage growth potential of new process technology, grow H2O2 business beyond traditional markets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- New world scale plant for 230 kt/a ( \text{H}_2\text{O}_2 ) and 300 kt/a PO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Investment volume &gt;€100 m, start up expected by end of 2013</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Further growth in Asia to fulfill rising demand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- World scale ( \text{H}_2\text{O}_2 ) plant for HPPO (250 kt/a) as part of Petronas’ RAPID project in Malaysia</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3 September, 2013 | Evonik Capital Markets Day 2013 | Specialty Materials
Business spotlight: C4 chain (Perf. Intermediates)
Fully integrated production platform in Europe

- Butadiene: 220 kt
- 1,500 kt C4 Streams
- Others: 800 kt
- Butene-1: 235 kt
- Fuel additive: MTBE 510 kt
- Polyethylene co-monomer: #1
- Plasticizer alcohol: INA/2PH 400 kt #1
- Plasticizer: DINP 220 kt #2
- Gases

End market growth +4%
GDP +6%

Fully integrated production set-up making complete use of all C4 fractions

Key success factors
- Leading, cost efficient technology platform with more than 30 years of experience
- High expertise in logistics of C4 products and streams
- New technologies to capture additional C4 feedstocks
- Scale, secure feedstock base and long-standing customer relationships
Business spotlight: C4 chain (Perf. Intermediates)
Strong value chain with good resilience

Indexed price [%]

2009 2010 2011 2012 2013

Butadiene

Business mix with good resilience

- MTBE, 1-butene, INA and DNP strong backbone of C4 business:
  - 80% of Performance Intermediates’ volumes
  - prices predominantly stable
- Butadiene prices recently volatile, but:
  - only 20% of Performance Intermediates’ volumes
  - Butadiene price historically notably higher than Naphtha price; price spread more important than absolute price levels
  - Captive use of Butadiene for Polyamide 12 production (natural hedge)
  - >70% for non-tire applications

1 Contract price Europe
Business spotlight: C4 chain (Perf. Intermediates)
Butadiene demand outgrowing supply from traditional C4 sources

- Demand growth driven by two factors
  - Growing demand for current applications, esp. rubber (~75% of growth)
  - Increasing substitution of natural rubber (short) by synthetic rubber\(^1\) (~25%)

- Growth of traditional Butadiene supply (extraction from side streams of Naphtha crackers) is slowing
- Increasing ethylene production from gas crackers (shale gas)
- Structural undersupply most likely gapped by on-purpose Butadiene production with higher cost than extraction
- Butadiene market price will be determined by minimal on-purpose opportunity costs

\(^1\) 1 mt of additional synthetic rubber not included in IHS analysis
\(^2\) W/o announced and hypothetical on-purpose capacities
Source: IHS world butadiene analysis 2013; Evonik research
3 September, 2013 | Evonik Capital Markets Day 2013 | Specialty Materials
• JV together with Petronas; Evonik as majority holder
• Part of RAPID complex in South Malaysia (near Singapore)
• Production of Isononanol (plasticizer alcohol; Evonik #2), 1-Butene (Co-Polymer; Evonik #1) and H₂O₂ for HPPO process (Evonik #2)
• Startup between 2017 and 2018
• Total Investment volume of the JV of >€500 m
Specialty Materials
Highlights

Leading global positions with attractive product portfolio
- MMA #2, PMMA #1-2
- PA 12 #1, PEEK #2
- Plasticizer alcohols #2, 1-butene #1
- H$_2$O$_2$ #2

Strong growth profile due to new applications and innovations
- PLEXIGLAS® for automotive glazing
- PA12 for oil and gas applications
- H$_2$O$_2$ for propylene oxide (HPPO)

Investment program already underway
- C4 expansion project in Europe to ramp up in 2015
- HPPO site in China in final construction phase

Additional investments intended with focus on Asia
- New PA12 site in Singapore
- Further enlargement of INA, 1-butene and H$_2$O$_2$ business with Petronas
- MMA production with new Aveneer® process in USA
Business spotlight: Acrylic Monomers & Polymers

Evonik well positioned in growing market

Expected MMA supply and demand (in t / a)

End markets for MMA/PMMA

Evonik strong #2 in MMA market

Evonik #1-2 in fragmented PMMA market

Company estimates
3 September, 2013 | Evonik Capital Markets Day 2013 | Specialty Materials
### Business spotlight: C4 chain (Perf. Intermediates)
#### Market dynamics and regional strategies

<table>
<thead>
<tr>
<th>Market dynamics for important C4 products</th>
<th>Regional strategies for C4 business</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Butadiene</strong></td>
<td><strong>Europe</strong></td>
</tr>
<tr>
<td>• SBR and PBR most important end markets for butadiene (&gt;40%), driven by tire markets</td>
<td>• Expand European Verbund production to grow with markets</td>
</tr>
<tr>
<td>• Growing structural undersupply due to limited C4 feedstock availability</td>
<td>• Valorize existing CC4 feedstock by extracting additional butadiene</td>
</tr>
<tr>
<td>• Ongoing volatility until structural changes in the industry (e.g. by on-purpose production)</td>
<td>• Secure feedstock supply together with strategic supply partners</td>
</tr>
<tr>
<td><strong>Butene-1</strong></td>
<td><strong>Asia</strong></td>
</tr>
<tr>
<td>• Long-term growth above GDP based on its role as preferred co-monomer for polyethylene (HDPE and LLDPE)</td>
<td>• Strengthen footprint in strong growing markets with regional production</td>
</tr>
<tr>
<td><strong>INA / DINP</strong></td>
<td><strong>RoW</strong></td>
</tr>
<tr>
<td>• Favorable general purpose plasticizer for PVC industry, which is growing above GDP in Asia</td>
<td>• Support growth of strategic customers</td>
</tr>
<tr>
<td>• Additional growth potential from substitution of labeled plasticizer DEHP</td>
<td>• Build strategic partnership with Petronas in South East Asia</td>
</tr>
<tr>
<td>Company estimates</td>
<td></td>
</tr>
<tr>
<td>3 September, 2013</td>
<td>Evonik Capital Markets Day 2013</td>
</tr>
</tbody>
</table>
## Specialty Materials overview

New profitability level after financial crisis

### Sales (€ m)

<table>
<thead>
<tr>
<th>Year</th>
<th>Performance Polymers</th>
<th>Advanced Intermediates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>4,229</td>
<td>2,832</td>
</tr>
<tr>
<td>2009</td>
<td>3,125</td>
<td>2,009</td>
</tr>
<tr>
<td>2010</td>
<td>4,117</td>
<td>2,460</td>
</tr>
<tr>
<td>2011</td>
<td>4,880</td>
<td>2,920</td>
</tr>
<tr>
<td>2012</td>
<td>4,843</td>
<td>3,069</td>
</tr>
</tbody>
</table>

CAGR +3%

### Adj. EBITDA and margin (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales</th>
<th>Adj. EBITDA</th>
<th>Margin (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>472</td>
<td>311</td>
<td>11.2</td>
</tr>
<tr>
<td>2009</td>
<td>626</td>
<td>2010</td>
<td>10.0</td>
</tr>
<tr>
<td>2010</td>
<td>907</td>
<td>2011</td>
<td>15.2</td>
</tr>
<tr>
<td>2012</td>
<td>853</td>
<td>2012</td>
<td>17.6</td>
</tr>
</tbody>
</table>

CAGR +12%

- Significant revenue growth generated across all businesses in Specialty Materials
- 2011 driven by record-high prices for C4 products (esp. butadiene)
- New profitability level established after financial crisis in 2009
- High value generation: 2012 ROCE of 38.7%

---

1 Adjusted EBITDA 2012 restated for IAS 19 effects

3 September, 2013 | Evonik Capital Markets Day 2013 | Specialty Materials
**Sales split by Evonik’s end markets (2012)**

- **Automotive, Transportation & Machinery**: 18%
- **Construction**: 18%
- **Plastics & Rubber**: 17%
- **General Industry**: 11%
- **Coatings, Paints and Printing**: 7%
- **Metals, Mining, Oil, Gas**: 6%
- **Home, Lifestyle & Personal Care**: 6%
- **Others**: 17%

**Sales split by region (2012)**

- **Germany**: 22%
- **North America**: 40%
- **Asia-Pacific/Asia**: 16%
- **Central & South America**: 16%
- **Middle East, Africa**: 4%
- **Other European Countries**: 17%
- **Other**: 6%

**Notes**

- Diversified end markets split; no dependence on one single end market
- Regional split influenced by strong European base of C4 business (Germany and Belgium)
- Overall geared towards end markets benefitting from the trend of substitution of conventional materials (e.g. auto, construction)
- Project pipeline destined to increase emerging market exposure, e.g. HPPO project in China or participation in RAPID project in Malaysia

---

¹ Company estimates on the basis of information on Evonik’s customers and the further use of Evonik’s products by its customers
## Specialty Materials overview
### Leading market positions in attractive markets

<table>
<thead>
<tr>
<th>Key Business Lines</th>
<th>Acrylic Monomers and Polymers</th>
<th>High Performance Polymers</th>
<th>Performance Intermediates</th>
<th>Active Oxygens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example products and applications</td>
<td><strong>PMMA</strong> for the construction and electronics industry</td>
<td><strong>High performance polyamide (PA12)</strong> for flexible oil &amp; gas pipelines and auto components</td>
<td><strong>1-butene</strong> as co-monomer for the production of polyethylene</td>
<td><strong>Hydrogen peroxide</strong> ($\text{H}_2\text{O}_2$) for textile and paper bleaching or for PO production</td>
</tr>
<tr>
<td>Evonik product position</td>
<td>#1-2 in MMA and PMMA</td>
<td>#1 in polyamide 12</td>
<td>#1 in 1-butene</td>
<td>#2 in hydrogen peroxide</td>
</tr>
<tr>
<td>% of sales from leading market positions</td>
<td><img src="chart1.png" alt="Pie chart" /> 93%</td>
<td><img src="chart2.png" alt="Pie chart" /> 73%</td>
<td><img src="chart3.png" alt="Pie chart" /> 52%</td>
<td><img src="chart4.png" alt="Pie chart" /> 100%</td>
</tr>
</tbody>
</table>

1 Company estimates, based on multiple research reports
2 Defined as top 1-3 positions; as per company estimates, based on multiple research reports

3 September, 2013 | Evonik Capital Markets Day 2013 | Specialty Materials
# Specialty Materials overview
## BU Performance Polymers

<table>
<thead>
<tr>
<th>Applications</th>
<th>High Performance Polymers</th>
<th>Acrylic Monomers</th>
<th>Acrylic Polymers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Medical</td>
<td>• Coatings</td>
<td>• LED/touch screens</td>
<td></td>
</tr>
<tr>
<td>• Photovoltaic systems</td>
<td>• PMMA</td>
<td>• Photovoltaic</td>
<td></td>
</tr>
<tr>
<td>• Automotive components</td>
<td>• Specialty monomer applications (e.g. disposable contact lenses)</td>
<td>• Light-weight systems</td>
<td></td>
</tr>
<tr>
<td>• Oil &amp; gas pipes</td>
<td></td>
<td>• Automotive components</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key products</th>
<th>High performance polyamide (PA12)</th>
<th>Methacrylate (MMA) and application monomers</th>
<th>Molding compounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Polyetheretherketone (PEEK)</td>
<td>Polyimide fibres and foams</td>
<td>Methacrylic acid</td>
<td>Acrylic sheets (Plexiglas / Acrylite)</td>
</tr>
</tbody>
</table>

| Sales split 2012 | ~25% | ~35% | ~40% |

| Market position¹ | # 1 in polyamide 12 | # 2 in MMA | # 1-2 in PMMA |

| % of sales from leading positions² | 73% | 96% | 90% |

<table>
<thead>
<tr>
<th>Main competitors</th>
<th>Arkema</th>
<th>LG MMA</th>
<th>Arkema</th>
</tr>
</thead>
<tbody>
<tr>
<td>• DuPont</td>
<td>Mitsubishi Chemicals</td>
<td>• Mitsubishi Chemicals</td>
<td></td>
</tr>
<tr>
<td>• EMS</td>
<td>• Sumitomo</td>
<td>• Sumitomo</td>
<td></td>
</tr>
</tbody>
</table>

---

¹ Company estimates for relevant markets based on multiple research reports
² Defined as Top 1-3 positions; as per Company estimates, based on multiple research reports
## Specialty Materials overview
### BU Advanced Intermediates

<table>
<thead>
<tr>
<th>Performance Intermediates</th>
<th>Active Oxygens</th>
<th>Functional Solutions</th>
<th>Agrochemicals &amp; Polymer Additives</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
</tr>
<tr>
<td><strong>Applications</strong></td>
<td><strong>Active Oxygens</strong></td>
<td><strong>Functional Solutions</strong></td>
<td><strong>Agrochemicals &amp; Polymer Additives</strong></td>
</tr>
<tr>
<td>• Plastics</td>
<td>• Oxidising agent in chemical reactions</td>
<td>• Catalysts for biodiesel production</td>
<td>• Polymer additives</td>
</tr>
<tr>
<td>• Styrene-butadiene-rubber</td>
<td>• Pulp &amp; paper bleaching</td>
<td></td>
<td>• Optical brighteners</td>
</tr>
<tr>
<td>• High performance polymers</td>
<td></td>
<td></td>
<td>• Photovoltaic</td>
</tr>
<tr>
<td><strong>Key products</strong></td>
<td></td>
<td></td>
<td>• Agro chemicals</td>
</tr>
<tr>
<td>• Butadiene</td>
<td>• Hydrogen peroxide</td>
<td>• Alcoxides (e.g. sodium methylate)</td>
<td>• Triacetonamine</td>
</tr>
<tr>
<td>• Butene-1</td>
<td></td>
<td></td>
<td>• Crosslinkers</td>
</tr>
<tr>
<td>• Plasticisers</td>
<td></td>
<td></td>
<td>• Precursors of glyphosates</td>
</tr>
<tr>
<td>• Plasticiser alcohols</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sales split 2012</strong></td>
<td>~70%</td>
<td>~10%</td>
<td>~10%</td>
</tr>
<tr>
<td><strong>Market position</strong></td>
<td># 1 in 1-butene</td>
<td># 2 in hydrogen peroxide</td>
<td># 1 in alcoholates</td>
</tr>
<tr>
<td><strong>% of sales from leading positions</strong></td>
<td><img src="image5.png" alt="52%" /></td>
<td><img src="image6.png" alt="100%" /></td>
<td><img src="image7.png" alt="95%" /></td>
</tr>
<tr>
<td><strong>Main competitors</strong></td>
<td>BASF</td>
<td>Arkema</td>
<td>BASF</td>
</tr>
<tr>
<td></td>
<td>Exxon Mobil</td>
<td>FMC</td>
<td>DuPont</td>
</tr>
<tr>
<td></td>
<td>LyondellBasell</td>
<td>Solvay</td>
<td></td>
</tr>
</tbody>
</table>

1. Company estimates for relevant markets based on multiple research reports
2. Defined as Top 1-3 positions; as per Company estimates, based on multiple research reports

3 September, 2013 | Evonik Capital Markets Day 2013 | Specialty Materials