

# FOCUS ON

# SURFACTANTS



**A MONTHLY REPORT FROM  
CAROLINE EDSER**

**JANUARY 2018**

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## -sizing up the surfactants market

As we kick off the new year, two items in this issue provide a quick check on the overall health of the global surfactants market. German market research firm Ceresana recently published the third edition of its comprehensive surfactants market study and cites a figure of \$31 bn for global turnover in 2016 (p 3). The report predicts that the market will experience an average annual growth rate of 3.1% between 2016 and 2024, which suggests that market size in value terms should reach about \$40 bn by the end of the forecast period. This forward figure is rather more conservative than the prediction in Ceresana's previous market study [*'Focus on Surfactants'*, Jul 2015], which suggested a market value of more than \$40 bn in 2022. The earlier edition also gave worldwide turnover as \$33.2 bn in 2014, implying a decline of more than \$2 bn in the value of the surfactants market in the intervening two years. The corresponding market volumes are not revealed in the press releases (understandably, as Ceresana wants us to buy the full report!) so it not possible to gauge whether they also decreased between 2014 and 2016 or whether they held firm and the reduction in value is the result of lower selling prices and/or a switch on the part of the formulated product manufacturers to using less costly surfactants.

Elsewhere, coverage from *'Chemical Weekly'* of the Indian Surfactants Conference, which was held in September, quotes the current size of the global surfactants market as \$32 bn in value terms – in close agreement with Ceresana's data – and 17 M tonnes in volume terms (p 4). From 2016 to 2024, the surfactants market is

expected to grow by nearly 2% in volume and >4% in value, according to the Indian predictions. Both items are, unsurprisingly, in agreement concerning the dominance of the Asia Pacific as the largest regional market for surfactants at c 38% and with a compound annual growth rate (CAGR) of 6%, significantly above the global average. This is exemplified by the Indian surfactants market itself, which is forecast to grow from about \$1.5 bn/y currently to \$2.5 bn by 2020 at a CAGR of 13%, according to K Natarajan, COO of Galaxy Surfactants. Over the same period, India's home care segment is expected to grow by 9% and its personal care segment by an enviable 15%.

On the subject of personal care, there is plenty of evidence in this issue of the continuing importance of this sector as a driver for growth and innovation in the surfactants market worldwide. Henkel is expanding its personal care portfolio by purchasing Shiseido's North American hair care business, while Unilever is acquiring US hair and skin care company Sundial Brands (p 5). Evonik introduced new personal care ingredients at SEPAWA 2017, including polyglycerol ester-based solubilizer Tego Solve 90 (INCI: polyglyceryl-6 caprylate and polyglyceryl-4 caprate) (p 6), while Vantage has launched bio-based multi-functional ingredient Liponic Bio-EG-1 (glycereth-26) (p 5). In Asia Pacific, AkzoNobel has completed the expansion of its surfactants facility in Boxing, China, [*ibid*, May 2013], which will boost its personal care offerings, among others, in the region, and Kao has built a new plant for personal care products in Taiwan (p 5). Finally, both Clariant and Croda have recently

opened new R&D labs to foster the formulation of personal care products; Clariant's is located in Tokyo, Japan, and Croda's in Liverpool, UK (p 5).

Caroline Edser

## RAW MATERIALS

### Linear alkylbenzene

#### Cepsa and ADNOC agree to evaluate world-scale LAB complex in Abu Dhabi

Abu Dhabi National Oil Co (ADNOC) and Cepsa Group, owned by Mubadala [previously known as International Petroleum Investment Co (IPIC)], have signed a Memorandum of Understanding (MoU) to assess the economic feasibility of a world-class linear alkylbenzene (LAB) complex in Ruwais, Abu Dhabi, United Arab Emirates (UAE). The facility is envisaged to be integrated with the Ruwais refinery complex. The partners plan to progress the basic engineering of the proposed project in 2018. ADNOC will supply raw materials for the project, while Cepsa will provide its expertise and a technological process created with UOP. The complex intends to provide better service to the LAB market in Asia and the Middle East. No other details were given. During 2016-2030, LAB demand in the Indian Ocean basin is expected to rise by 5%/y. Cepsa's output is expected to represent 15% of annual global volumes.

Original Source: Chimie Pharma Hebdo, 20 Nov 2017, (0822), (Website: <http://www.industrie.com/chimie>) (In French) © ETAI Information 2017. Original Source: Petrochemical News, 20-27 Nov 2017, 55 (45), 2 (Website: <http://www.petrochemical-news.com>) © William F. Bland Co. 2017

#### Indian tax rate cut on detergents boosts LAB outlook

In India, the government slashed the goods and service tax (GST) applicable on detergents and other mass consumption goods from the maximum 28% down to 18% in November. The unified GST was implemented in July ['Focus on Surfactants', Oct 2017]. As a result of the tax cut, market players anticipated stronger detergents demand

in the following weeks, increasing near-term demand for linear alkylbenzene (LAB). LAB demand in the country was reported to have remained weak between June and November, with the absence of the usual seasonal upturn after the end of the monsoon season.

Original Source: ICIS Chemical Business, 24-30 Nov 2017, 292 (19), 8 (Website: <http://www.icis.com>) © Reed Business Information Limited 2017

#### Mideast LAB prices face upward pressure

The Middle Eastern spot price of linear alkylbenzene (LAB) is increasing due to strong demand in Europe and Central America, amid rising feedstock prices and tight supply. In Central America, a cargo was sold at \$1250/tonne free-on-board (FOB) Middle East. According to ICIS data, spot prices were estimated at \$1140-1200/tonne FOB Middle East on 25 Oct 2017. On the back of strong local supply, exports from the Middle East were limited. Surpluses are likely bound for deep-sea cargoes for Central America and Europe due to higher profit gains. Consequently, European traders do not plan to sell cargoes to Asia or India for the rest of 2017 due to limited supply. Another factor that affects the Middle Eastern uptrend is the rising feedstock cost. Crude and benzene values were higher as of 1 Nov 2017. ICE Brent futures were up 18 cents/barrel while feedstock benzene was up \$11-14/tonne FOB Korea. In Southeast Asia, LAB was firmer due to the delay of Jintung Petrochemical Corp's start up after its mid-Aug 2017 maintenance [see also, 'Focus on Surfactants', Dec 2017]. On 23 Oct 2017, Isu Chemical of South Korea shut down for a planned maintenance for 35 days. On the same day, JXTG Nippon Oil and Energy Corp of Japan closed its LAB plant for maintenance. The tight supply and rising feedstock costs provide strong support for sellers to increase their offers. Many LAB buyers convert it to linear alkylbenzene sulfonate (LABS), used for the manufacture of industrial and household detergents. However, the LABS market has been weakening due to the increasing popularity of sodium laureth sulfate (SLES), which is found in liquid detergents.

Original Source: ICIS Chemical Business, 10-16 Nov 2017, 292 (17), 14 (Website: <http://www.icis.com>) © Reed Business Information Limited 2017

### Oleochemicals

#### Palm oil prices may rise to Ringgit 3100/tonne by Jan 2018

Crude palm oil (CPO) prices in Malaysia are projected to increase to Ringgit 3100/tonne (c €644/tonne) in Jan 2018 on still lower-than-anticipated stockpiles despite palm's high production cycle. According to Godrej International, prices of refined, bleached and deodorized (RBD) palmolein could also rise to \$750/tonne free-on-board (FOB). CPO prices are expected to reach \$800/tonne CIF Rotterdam in Jan 2018, which could further rise to \$850/tonne in Mar 2018 due to tight inventories as Malaysian and Indonesian production struggles to recover. Malaysian stockpiles reached the 2 M tonne level in Sep 2017 for the first time in more than a year, but remain below levels recorded in Sep 2014 and Sep 2015. Crude palm kernel oil (CPKO) prices may increase marginally in Apr-Jun 2018 but are expected to drop to \$800-1000/tonne CIF Rotterdam from Jul 2018 on stock recovery.

Original Source: The Star, 3 Nov 2017, (Website: <http://thestar.com.my>) © Star Publications (M) Bhd 2017

### Alkyene oxides/ other

#### PTTGC plans US cracker investment

Among recently discussed investment plans both within and beyond its home market of Thailand, PTT Global Chemical (PTTGC) has revealed that it intends to establish an ethane cracker in the northeastern state of Ohio in the USA. Its planned cracker complex at Belmont would have an ethylene capacity of 1 M tonnes/y and two 350,000-tonne/y high density polyethylene units. The project also includes 500,000 tonnes/y of monoethylene glycol and 100,000 tonnes/y of ethylene oxide capacity.

Original Source: ICIS Chemical Business, 3-9 Nov 2017, 292 (16), 10-11 (Website: <http://www.icis.com>) © Reed Business Information Limited 2017

#### North American EO supply normalized into Nov 2017

Supply of ethylene oxide (EO) in the USA normalized going into Nov 2017 driven by mixed downstream markets.

Huntsman intended to resume production at the EO/ethylene glycol (EG) unit at its plant in Port Neches, TX at the end of Oct 2017 after mechanical completion. The improvement in the logistics situation could be offset by decreased imports as a result of antidumping investigations and supply uncertainty stemming from the financial situation of M&G. Meanwhile, as of early Nov, the ethanolamines (EOA) market was still limited, with two producers on order control and one manufacturer on force majeure. The force majeure of Dow on glycol ethers in the USA was also still in effect because of delayed shipments.

Original Source: ICIS Chemical Business, 3-9 Nov 2017, 292 (16), 12 (Website: <http://www.icis.com>) © Reed Business Information Limited 2017

## European chemical profile: propylene oxide

Propylene oxide (PO) supply during 1H 2017 in Europe decreased mainly because of LyondellBasell's scheduled turnaround at its site in Botlek, the Netherlands, during Spring 2017 and the force majeure on Shell/BASF's joint venture PO/styrene monomer 2 (SM2) line at Ellba during Jun-Jul 2017 [*'Focus on Surfactants'*, Sep 2017]. Aside from being affected by a sequence of PO-linked output problems, PO supply was also impacted by the tightness in the upstream propylene market. PO demand has been strong, on top of production restraints, especially from the core downstream polyurethanes market, which has aggravated an already narrow PO market in 1H 2017. Signs of a more balanced market emerged by mid-Sep 2017. PO contract prices increased during 1Q 2017 and into early 2Q 2017, on the back of stronger upstream propylene contract expenses. European PO demand is projected to increase by about 3%/y on average, considering growth estimates for its main derivatives. New PO capacity will come from Sadara in the Middle East, which commenced in 3Q 2017, and MOL's proposed new PO plant in Eastern Europe [*ibid*, Sep 2017]. These are anticipated to be for captive MPG and downstream polyols usage. The Sadara PO volumes are also expected to be mainly allocated for the Middle East and Asian markets rather than for Europe. LyondellBasell intends to construct the world's biggest PO/tertiary butyl alcohol (TBA) facility in

Texas, USA, by mid-2021. European PO capacity includes Dow Chemical's 630,000 tonnes/y operation in Stade, Germany; LyondellBasell Bayer Manufacturing Maasvlakte's 315,000 tonnes/y capacity in Maasvlakte, the Netherlands; and BASF/Dow's 300,000 tonnes/y capacity in Antwerp, Belgium.

Original Source: ICIS Chemical Business, 3-9 Nov 2017, 292 (16), 32 (Website: <http://www.icis.com>) © Reed Business Information Limited 2017

## Dow lifts force majeure on ethanolamines in Europe

Dow has lifted the force majeure on its diethanolamines (DEA), triethanolamines (TEA) and monoethanolamines (MEA) in Europe. The force majeure was declared on 6 Sep 2017 due to logistical and output problems at the firm's Seadrift facility in the USA due to Hurricane Harvey.

Original Source: ICIS Chemical Business, 10-16 Nov 2017, 292 (17), 6 (Website: <http://www.icis.com>) © Reed Business Information Limited 2017

# SURFACTANTS

## Oxiteno moves closer to completion of alkoxylation plant in USA

Oxiteno's new alkoxylation plant in Pasadena, TX, USA, is nearing completion and is due for start-up in early 2018 [*'Focus on Surfactants'*, Feb 2017 & Jan 2016]. Oxiteno, a business of Brazil's Ultrapar, is a producer of surfactants and chemicals. The new US plant will have a capacity of 170,000 tonnes/y and utilize an innovative alkoxylation system to manufacture a wide range of speciality surfactants, including amine and alcohol ethoxylates, kosher polysorbates, sodium isethionate, ethylene oxide/propylene oxide (EO/PO) products, and high molecular weight polyethylene glycols (PEGs).

In 3Q 2017, Oxiteno's net sales rose to Real 1.030 bn (€263 M), up by 7.7% from the previous year and a record for the company. Sales volumes also reached an all-time high of 211,000 tonnes, with sales growth in both speciality chemicals and commodities. EBITDA was Real 74 M, down 25% year on year, but if one-off negative effects of Real 26 M are excluded the figure is on a par with 3Q 2016.

Original Source: Chemical Weekly, 24 Oct 2017, 172 (Website: <http://www.chemicalweekly.com>) © Sevak Publications & Chemical Weekly Database P Ltd 2017. Original Source: Ultrapar Participações SA, 9 Oct 2017, (Website: [www.ultra.com.br](http://www.ultra.com.br)) © ULTRA 2017

## Ceresana publishes updated surfactants report

According to the 3rd edition of Ceresana's 'Market Study: Surfactants', the sector achieved global sales of almost \$31 bn in 2016. Revenues are expected to increase at an average growth rate of 3.1% per year during the forecast period to 2024. The study analyses revenues, production, demand, import and export data for anionic, cationic, nonionic and other surfactants, and for individual product types. Anionic surfactants currently account for the largest share of the global market at 49%. However, the strongest growth is achieved by nonionic surfactants; fatty alcohol ethoxylates dominate this type. In regional terms, the Asia-Pacific region is by far the largest consumer of surfactants with a world market share of 38%. The report finds that there are clear differences with regard to the product types used in each region: while Asia accounted for a market share of 43% of alkylbenzene sulfonates in 2016, consumers in Western Europe and North America dominate the market for alkyl sulfates, alkyl ether sulfates and alcohol ethoxy sulfates, with a share of 60%. The best-known applications of surfactants are in household cleaners and detergents; this segment registered about 55% of the overall demand in 2016. While demand for powdered laundry detergents developed more weakly in recent years, the market for liquid and highly concentrated detergents witnessed significant growth, Ceresana reports. In the dishwashing detergent segment, tablets account for considerable growth. The increasing demand for surfactants from the personal care and cosmetics industry can be explained by the growing awareness of personal body hygiene and the fact that available income has been increasing in many countries in recent years. This trend is additionally reinforced by the increasing sales of products with natural and organic ingredients. Among the different applications areas, paints and plastics are forecast to increase at the fastest rate of about 2.1%/y until 2024. The

691-page study contains 195 graphs and 334 tables, with 31 country profiles and 92 company profiles, including Shell, General Electric, BASF, Procter & Gamble, DowDuPont, 3M, AkzoNobel, Evonik Industries, and Solvay. Prices for the market report range from €3000 for a basic licence to €6900 for a corporate licence.

Original Source: Ceresana, Nov 2017 (Website: <http://www.ceresana.com>) © Ceresana 2017

## Home and personal care sectors to drive growth of Indian surfactants market

During the Indian Surfactants Conference, held on 21-22 Sep 2017 in Mumbai, India, under the auspices of ICIS, K Natarajan, executive director and COO of Galaxy Surfactants, predicted that the Indian surfactants market will post a compound growth rate of 13%/y and total \$2.5 bn by 2020, up from the current average of \$1.5 bn. According to Natarajan, the growth of the surfactants market will be driven in large part by the home and personal care (HPC) segments. The home care segment is expected to grow by about 9% through to 2020 and the personal care segment by about 15%. During 2016-2020, the fast-moving consumer goods (FMCG) market in India is projected to grow at a compound annual growth rate (CAGR) of 20.6%, rising from \$40 bn in 2016 to \$103.7 bn by 2020. A presenter from Tata Strategic Management Group indicated that nearly 55% of India's surfactant consumption goes to the HPC sectors, with textile applications consuming 17%, industrial cleaning 5%, agrochemicals 4%, paints and coatings 3%, leather 3%, and other sectors 3%. Nonionics and anionics account for approximately 80% of the Indian market. Globally, the surfactants market is worth \$32 bn in value terms and 17 M tonnes in volume terms. Surfactants represent only around 7% of the worldwide chemical industry. From 2016 to 2024, the surfactants market is forecast to expand by almost 2% in volume terms and more than 4% in value terms. Valued at about \$11 bn, the Asia Pacific is the biggest and fastest expanding surfactants market. The region is poised to witness a 6% CAGR through 2024.

Original Source: Chemical Weekly, 10 Oct 2017, 211-212 (Website: <http://www.chemicalweekly.com>) © Sevak Publications & Chemical Weekly Database P Ltd 2017

## Indian surfactants: consolidation and innovation needed

During the recently held Indian Surfactants Conference, the opportunities and challenges facing the surfactants industry in India were highlighted. As an important segment of the chemical industry, the surfactants sector serves a range of markets, led by textiles, agrochemicals, home and personal care (HPC), and paints and coatings. Surfactants can be grouped into three main categories according to their chemistry: anionics, nonionics and cationics. Primary examples of anionics are linear alkylbenzene sulfonic acid (LABSA), while examples of nonionics are fatty alcohol ethoxylates (FAE). LABSA is widely used in India, and can be easily formulated into detergent powders and bars, but the domestic availability of its main feedstock linear alkylbenzene (LAB) is a matter of concern. Demand for LAB in India is approximately 620,000 tonnes/y while production is nearly 440,000 tonnes/y. To meet domestic demand, India imports almost 180,000 tonnes of LAB, mainly from China, Thailand, the Middle East and Egypt. The trend of rising LAB imports is expected to continue for some years. The last major LAB plant in India was established more than 10 years ago by Indian Oil Corp. Only one surfactants producer, Reliance Industries, serves the merchant markets with ethylene oxide (EO) but the company has sufficient capacity at the moment to address local needs. The other Indian EO producer, India Glycols Ltd, consumes all of its EO captively for derivatives. The EO produced by Reliance is intended primarily for conversion to monoethylene glycol (MEG). In general, the Indian surfactants industry needs to consolidate and continuously innovate in order to achieve sustainable growth.

Original Source: Chemical Weekly, 10 Oct 2017, 137-138 (Website: <http://www.chemicalweekly.com>) © Sevak Publications & Chemical Weekly Database P Ltd 2017

## ASSOCIATED PRODUCTS

### Italmatch Chemicals acquires Sudamfos Do Brasil

Ardian company Italmatch Chemicals has acquired São Paulo-based

Sudamfos do Brasil through its recently created local subsidiary Italmatch Do Brasil Participações Ltda. Sudamfos do Brasil is a Brazilian distributor specializing in the marketing of phosphonates, phosphates and other speciality chemical products. Italmatch Chemicals' existing portfolio includes the Duquest line of phosphonates used as chelating and sequestering agents [see 'Focus on Surfactants', Feb 2015]. The acquisition gives the Italian company a stronger presence in the Latin American market, as well as reinforcing the overseas growth and development recently undertaken by the group in the Americas.

Original Source: Italmatch Chemicals, 30 Oct 2017 (Website: <http://www.italmatch.com>) © Italmatch Chemicals SpA 2017

### P&G to divulge fragrance ingredients in consumer products

Procter & Gamble (P&G) plans to disclose the fragrance ingredients in more than 2000 products sold in the USA and Canada by end-2019. The company will initially disclose the ingredients of products in the home, fabric and beauty categories. Aside from listing fragrance ingredients, P&G will also identify other products containing the same ingredients, such as foods, fruits, etc. The company will eventually expand its ingredient list to other product categories and other markets that sell its products.

Original Source: Chemical Weekly, 26 Sep 2017, 179 (Website: <http://www.chemicalweekly.com>) © Sevak Publications & Chemical Weekly Database P Ltd 2017

### CPI Aromas opens fragrance research centre in the UK

Fragrance firm CPL Aromas has inaugurated its new £1 M scientific research facility in Northamptonshire, UK, to boost its fragrance ingredients R&D. The company aims to provide better testing of fragrance ingredients and products, as well as space to conduct original research, for its clients through the facility. The facility houses the newest 'odour scrubbing' technology for quickly removing scents. It also features testing facilities for fine fragrance, household care and personal care.

Original Source: SPC, Soap, Perfumery and Cosmetics, Sep 2017, 90 (9), 9 (Website: <http://www.cosmeticsbusiness.com/>) © HPCi Media Ltd 2017

## Vantage continues its commitment for green and sustainable personal care ingredients

Vantage Specialty Ingredients has continued its commitment to providing naturally better solutions to the personal care market with the development and launch of its first personal care product based on bio-ethylene oxide. Launched to the market in late Oct 2017, Liponic Bio-EG-1 (glycereth-26) is a sustainably produced multi-functional ingredient derived from natural and sustainable feedstocks, including RSPO-grade glycerine and ethylene oxide derived from corn ethanol. According to the company, the product can be used as a skin conditioning agent, humectant, dispersant, detackifier, solubilizer, viscosity modifier, plasticizer, foam modifier and lubricant.

Original Source: Vantage Specialty Ingredients, 2017. Found on SpecialChem Cosmetics and Personal Care Innovation and Solutions, 3 Nov 2017, (Website: <http://www.specialchem4cosmetics.com>)

## APPLICATIONS

### Personal care products

#### Henkel to take over Shiseido's North American hair care business

Germany's Henkel has signed an agreement to acquire Zotos International, Shiseido's North American Hair Professional business, for \$485 M. The deal also includes the Joico Professional brand. In FY 2016, Zotos International reported sales of about \$230 M and employed around 700 people. Based in Darien, CT, USA, where it operates a manufacturing site as well as an R&D facility, the company is mainly focused on the US market but is also present in Europe and Asia. The acquisition is subject to customary closing conditions, including regulatory approvals. According to data from Kline's Salon Hair Care Global Series, this transaction, plus the company's earlier 2017 acquisition of Pravana [*'Focus on Surfactants'*, May 2017], will nearly double Henkel's share in North America from 7.7% to 13.6%, ahead of Coty's 11.1% and ELC's 8.1%.

Original Source: Henkel, 2017. Found on SpecialChem Cosmetics and Personal Care

Innovation and Solutions, 3 Nov 2017, (Website: <http://www.specialchem4cosmetics.com>). Original Source: Kline, 2017. Found on SpecialChem Cosmetics and Personal Care Innovation and Solutions, 6 Nov 2017, (Website: <http://www.specialchem4cosmetics.com>)

#### Unilever to expand its personal care portfolio with Sundial Brands acquisition

Unilever has announced an agreement to acquire Sundial Brands, a New York-based personal care products company with an expected 2017 turnover of c \$240 M. Sundial Brands is a leading hair care and skin care company recognized for its innovative use of high-quality and culturally authentic ingredients. Sundial's brands include SheaMoisture, Nubian Heritage, Madam CJ Walker and nyakio. The terms of the transaction were not disclosed.

Original Source: Unilever, 2017. Found on SpecialChem Cosmetics and Personal Care Innovation and Solutions, 29 Nov 2017, (Website: <http://www.specialchem4cosmetics.com>)

#### Kao completes production facility for personal care in Taiwan

Kao Corp's Taiwan subsidiary, Kao (Taiwan) Corp has completed the construction of a new plant for the manufacture of beauty care products in its Hsinchu Plant, doubling the site's capacity for these products. Initial investment was approximately ¥3.3 bn (c €24.4 M). The newly completed unit was constructed to reinforce the supply capacity of Kao's rapidly growing Taiwanese beauty care business. The new plant will initially produce Kao's Biore and Men's Biore skin care brand products, and Essential and Liese hair care brand products. More products will be added in the future as the business grows.

Original Source: Kao Corporation, 2017. Found on SpecialChem Cosmetics and Personal Care Innovation and Solutions, 27 Nov 2017, (Website: <http://www.specialchem4cosmetics.com>)

#### Clariant boosts personal care research with new lab in Tokyo

Clariant has announced the opening of a new laboratory in Tokyo dedicated exclusively to supporting Japan's personal care industry. Located inside the Tokyo Metropolitan Industrial Technology Research Institute (TIRI) in Tokyo's central business district, the new lab offers local customers easy access to technical facilities and expertise to boost their R&D activities.

The facility supplements Clariant's existing Shizuoka Technical Service Centre in providing industry customers with more opportunities for collaboration early on in their formulation development. Clariant's new lab will take advantage of the TIRI's support on commissioned analytical work through various equipment and facilities available at the Institute.

Original Source: Clariant, 2017. Found on SpecialChem Cosmetics and Personal Care Innovation and Solutions, 7 Nov 2017, (Website: <http://www.specialchem4cosmetics.com>)

#### Clariant breaks personal care conventions with new Essence by Clariant formulations

Clariant has introduced Essence by Clariant, a selection of market-ready personal care products that use consumer-friendly ingredients in innovative ways to deliver the luxury and exciting experiences consumers crave. Unveiled at California SCC Suppliers' Day 2017, Essence by Clariant breaks formulation and market conventions in personal care products with the absence of controversial ingredients. All Essence formulations are made without using parabens, formaldehyde donor, MIT/CMIT, sulfates, betaines, silicones, petrolatum or mineral oil. The range includes a crystal clear shampoo, a hydrating hair mask, hand foam and shaving foam, among others.

Original source: Clariant, 16 Nov 2017, (Website: <http://www.clariant.com>) © Clariant 2017

#### Croda launches Centre of Innovation for Personal Care Formulation Science

Croda International has announced the opening of its Centre of Innovation for Formulation Science at the University of Liverpool's new Materials Innovation Factory (MIF). The investment in a permanent laboratory facility at the MIF will enable Croda to utilize state-of-the-art automated technologies to further enhance its formulation science knowledge and capability across all its market sectors.

Original Source: Croda International, 2017. Found on SpecialChem Cosmetics and Personal Care Innovation and Solutions, 22 Nov 2017, (Website: <http://www.specialchem4cosmetics.com>)

## Evonik showcases latest cosmetic solutions at SEPAWA 2017

Evonik presented an assortment of ingredients for cleaning agents and cosmetics at SEPAWA Congress 2017. In addition to novel products developed as a result of in-house research, the expanded portfolio is also due to the acquisition of multiple companies. Tego Solve 90 is a Cosmos-certified solubilizer that allows manufacturers to efficiently incorporate a wide array of perfume and essential oils into aqueous formulations. The polyglycerol ester can be cold processed, contains no polyethylene glycol (PEG), and is made entirely from renewable resources such as canola and RSPO-certified palm oil. Another product innovation is Tego Feel C 10, a natural, readily biodegradable replacement for microplastics in leave-on products. This chemically unmodified cellulose fibre can absorb more than its own weight in oil and sebum.

Original Source: Evonik, 2017. Found on SpecialChem Cosmetics and Personal Care Innovation and Solutions, 30 Oct 2017, (Website: <http://www.specialchem4cosmetics.com>)

## Other

### Stepan Oilfield Solutions presented novel foaming agents for high-temperature applications at ADIPEC

Stepan Oilfield Solutions presented its development of novel foaming agents for high-temperature steam-assisted gravity drainage (SAGD) applications at the Abu Dhabi International Petroleum Exhibition and Conference (ADIPEC), 13-16 Nov 2017 in Abu Dhabi, United Arab Emirates. The paper addresses a new class of high-temperature foamers that extend the current range of cost-effective foaming agents for SAGD applications. These foams represent another tool available to service companies and operators for solving issues in the field. Potential applications for high-temperature foams were discussed in light of the results. Stepan Oilfield Solutions has also partnered with Interface Fluidics Laboratory to develop a new, rapid screening technology that enables operators to check chemical additives, such as foaming agents, at reservoir-relevant pressures and temperatures (250°C and 5 MPa) before conducting a field trial. At ADIPEC, Stepan and Interface Fluidics jointly presented a paper that

described this novel microfluidic method for screening thermal foams and the pore-scale mechanism of foam degradation at elevated temperature. This is the first study showing visual evidence of how thermal foams perform at reservoir-relevant temperatures and pressures.

Original Source: Eurasian Chemical Market, 2 Nov 2017, (Website: <http://www.chemmarket.info/en/>) © Eurasian Chemical Market 2005-2017

## LEGISLATION

### California enacts cleaning product law

Cleaning products manufacturers must reveal ingredients on product labels and online when selling their products in California, USA, due to a new, first-of-its-kind law in the state. The law is applicable to ingredients in general cleaning, floor maintenance, air care and automobile care products. Fragrance compounds that are classified by the European Union as allergens must be revealed in the product's information. Colorants and trade secret fragrances are exempted from the law. Producers must give their ingredients information online by 2020 and on labels by 2021. Firms that support the bill include SC Johnson, Unilever, WD40, Givaudan, Seventh Generation, Procter & Gamble and Reckitt Benckiser. New York state is also committed to having a similar regulation soon.

Original Source: Chemical and Engineering News, 23 Oct 2017, 95 (42), 11 (Website: <http://cen.acs.org/index.html>) © American Chemical Society 2017

## MARKET REVIEWS

### Laundry detergent market worth \$205.2 bn by 2025

The global laundry detergent market value is expected to reach \$205.2 bn by 2025, growing at a compound annual growth rate (CAGR) of 4.9% from 2017 to 2025, according to a new report by Grand View Research. Rising penetration of washing machines in the developing economies is expected to

propel the sector growth. Tide, Purex and Surf are the leading brands in the sector, accounting for almost half of the global market, while Procter & Gamble, Unilever, Church & Dwight, and Henkel are the largest vendors.

Original Source: Grand View Research Inc, 2017. Found on PR Newswire, 28 Nov 2017, (Website: <http://www.prnewswire.com>)

### Growing product innovations & demand from men to fuel global hair care market

In a recent report from Transparency Market Research (TMR), the vendor landscape of the global market for hair care is observed to be moderately consolidated, with the leading four companies, Henkel, Procter & Gamble, L'Oreal and Unilever, holding >55% of the market in 2015. TMR forecasts that the global hair care market will exhibit a moderate compound annual growth rate (CAGR) of 3.0% over the period between 2016 and 2024, rising from a valuation of \$81.3 bn in 2015 to a potential \$105.3 bn by 2024. Of the key hair care product varieties available in the global market, the shampoos segment accounted for 30.9% of the overall market in 2015. The demand for shampoos will continue to remain strong, making the segment one of the leading revenue contributors to the global market over the next few years as well. From a regional perspective, the market in Asia Pacific is expected to remain the most promising regional market for hair care products over the report's forecast period. The region accounted for >33.12% of the global market in 2016 and is likely to register steady growth and retain its dominant spot. The leading position of the Asia Pacific market is attributed to emerging economies such as China and India. Hair colours will constitute a large portion of overall demand for hair care products from men. The rapid urbanization and rising disposable incomes in emerging economies such as China and India and other developing economies has led to the easy availability of international brands of hair care products, which has led to a steady demand from both female and male demographics. This review of the global hair care market is based on a recent market research report published by TMR, titled 'Hair Care Market (Product Type - Shampoo, Hair Colour, Conditioner, Hair Styling Products, and Hair Oil) - Global Industry Analysis,

Size, Share, Growth, Trends, and Forecast, 2016-2024'.

Original Source: Transparency Market Research, 2017. Found on SpecialChem Cosmetics and Personal Care Innovation and Solutions, 28 Nov 2017, (Website: <http://www.specialchem4cosmetics.com>)

## COMPANY RESULTS

### Clariant again grows sales, increases profitability

Speciality chemicals producer Clariant reported nine months 2017 sales of SFR 4.698 bn (€3.985 bn), compared to SFR 4.299 bn in 2016. Growth was strongest in North America and in the Middle East & Africa, where local currency sales in both regions rose by 16%. In Asia, sales increased by 12% supported by brisk growth in China and Southeast Asia. Sales in Europe increased by a solid 8%. Latin America dipped by 1%, due to the still-challenging macroeconomic environment which, however, shows signs of improvement. Care Chemicals and Catalysis both reflected ongoing strong expansion. Sales in Care Chemicals rose by 9% in local currency with strong Consumer Care and Industrial Applications businesses. Clariant's EBITDA before exceptional items climbed by 10% in Swiss francs and reached SFR 717 M, compared to SFR 652 M in 2016. As a result, the corresponding EBITDA margin before exceptionals advanced from 15.2% to 15.3%. In 3Q 2017, sales growth accelerated by 12% in local currencies to SFR 1.566 bn. EBITDA before exceptional items rose by 13% in Swiss francs to SFR 235 M driven by the upswing in Catalysis, the increase in Care Chemicals and the contribution from Plastics & Coatings.

Original source: Clariant, 31 Oct 2017, (Website: <http://www.clariant.com>) © Clariant 2017

### Croda reports continued organic growth driven by personal care

For 3Q 2017, Croda posted sales of £334.6 M, up 6.1% year on year driven by strong performances in Personal Care (+9.0%) and Performance Technologies (+9.1%). The Life

Sciences division reported 2.0% sales growth in 3Q 2017. The 3Q profit margin recorded a slight year-on-year increase. In Personal Care, sales were driven by growth in all regions, with all three businesses performing well. According to Croda, the strong performance from Performance Technologies reflects a strategy of driving value ahead of volume.

Original Source: Croda, 31 Oct 2017 (Website: <http://www.croda.com>) © Croda International Plc

### Huntsman announces strong third quarter 2017 results

For the third quarter of 2017, Huntsman posted net income of \$179 million compared to \$64 million a year earlier. Revenues totalled \$2.169 bn, up from \$1.831 bn in 3Q 2016. Adjusted EBITDA was \$340 million (16% EBITDA margin), impacted by \$50 million from Hurricane Harvey, compared to \$234 million the previous year. Revenues in the Performance Products segment decreased year on year due to lower sales volumes, partially offset by higher average selling prices. Sales volumes decreased primarily due to the sale of the European surfactants business to Innospec [Focus on Surfactants', Feb 2017] as well as the impact of hurricane-related production outages in 3Q 2017, which also reduced segment adjusted EBITDA by about \$35 million.

Original Source: Huntsman, 27 Oct, 2017 (Website: <http://www.huntsman.com>) © Huntsman International LLC 2017

## COMPANY NEWS

### Sasol refines corporate strategy, decides not to pursue proposed Lake Charles GTL project

As part of its refined corporate strategy, Sasol has so far completed reviews on more than half of its global assets and projects, and confirmed that most will be retained. The company also said that, until 2022, it plans to make moderate investments, whether organic or external growth, with operations ranging from \$500 M to \$1 bn. The company's Lake Charles Chemicals Project (LCCP) project in Louisiana, USA, is on schedule, with the first units

due to start up in 2H 2018. The complex is estimated to cost around \$11 bn, up by nearly 100% from the original budget. However, the company has decided that it will no longer pursue its proposed gas-to-liquids (GTL) project in Lake Charles, which was to have been built alongside the LCCP site at a cost of \$11-14 bn.

Original Source: Chimie Pharma Hebdo, 24 Nov 2017, (0823), (Website: <http://www.industrie.com/chimie>) (in French) © ETAI Information 2017. Original Source: PetroChemical News, 4 Dec 2017, 55 (46), 4 (Website: <http://www.petrochemical-news.com>) © William F. Bland Co. 2017

### Shiseido's core-corona emulsification technology gives break from conventional methods

Shiseido Co has developed a novel core-corona emulsification technology that allows versatility in mixing oil and water. This technology gives freedom in choice of oil and its composition ratio for emulsification without using surfactants. This new technology is expected to offer innovative cosmetics formulations such as sunscreen with a dewy refreshing texture and high water-resistance and highly effective moisturizing cream without a sticky feel, functions that were hard to balance with conventional surfactant-based technologies.

Original Source: Shiseido Company, 2017. Found on SpecialChem Cosmetics and Personal Care Innovation and Solutions, 26 Oct 2017, (Website: <http://www.specialchem4cosmetics.com>)

### BASF opens chemical catalysts plant in China

BASF celebrated the official opening of its new, world-scale chemical catalysts manufacturing plant in Caojing, Shanghai, China, on 30 Nov 2017. The new, highly automated and energy-efficient plant is BASF's first chemical catalysts manufacturing facility in the Asia Pacific region. Using cutting-edge production technologies, the BASF wholly-owned plant will serve the growing chemical industry in China and around the Asia Pacific region with base metal catalysts and absorbents. The catalysts are used, for example, in the production of fatty alcohols, styrene and butanediol.

Original source: BASF, 30 Nov 2017, (Website: <http://www.basf.com/>) © BASF 2017

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